

FEDERAL AVIATION REGULATIONS



DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION—WASHINGTON, DC

CHANGE 11

EFFECTIVE: JUNE 17, JULY 15
AUGUST 1 AND
SEPTEMBER 3, 1996

Part 135—Operating Requirements: Commuter and On-Demand Operations

This change revises Special Federal Aviation Regulations 38-2 and 58, and incorporates four amendments:

Amendment 135-62, Child Restraint Systems, adopted May 24 and effective September 3, 1996. Section 135.128 is the only section revised by this amendment. The preamble to this amendment starts on page P-754.

Amendment 135-63, Aircraft Flight Simulator Use in Pilot Training, Testing, and Checking and at Training Centers, adopted May 23 and effective August 1, 1996. Sections 135.291 and 135.321 are amended and § 135.324 is added by this amendment. The preamble to this amendment starts on page P-762.

Amendment 135-64, Training and Qualification Requirements for Check Airmen and Flight Instructors, adopted May 30 and effective June 17, 1996. Sections 135.337 and 135.339 are revised and §§ 135.338 and 135.340 are added by this amendment. The preamble to this amendment starts on page P-825.

Amendment 135-65, Operating Requirements: Domestic, Flag, Supplemental, Commuter, and On-Demand Operations: Corrections and Editorial Changes, adopted June 4 and effective July 15, 1996. The following sections are amended by this amendment: §§ 135.2, 135.3, 135.43, and 135.64. The preamble to this amendment starts on page P-837.

Bold brackets enclose the most recently added or changed material. The amendment number and effective date of new material appear in bold brackets at the end of each section.

Page Control Chart

Remove Pages	Dated	Insert Pages	Dated
P-753	Ch. 10	P-753 through P-839	Ch. 11
Subparts A and B	—	Subparts A and B	Ch. 11
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Suggest filing this transmittal at the beginning of the FAR. It will provide a method for determining that all changes have been received as listed in the current edition of AC 00-44, Status of Federal Aviation Regulations, and a check for determining if the FAR contains the proper pages.

FAA criteria define "a substantial number" as not less than eleven nor more than one-third of the small entities subject to the rule. Among air carriers, a small entity is defined as one which owns, but does not necessarily operate, nine or fewer aircraft. The criteria define "a significant impact" as follows: \$102,000 for scheduled air carriers with 60 or more seats; \$57,000 for scheduled air carriers with fewer than 60 seats.

This amendment is wholly cost relieving. By eliminating the need for two LRCS and LRNS in the geographic area, the estimated cost savings to an operator is \$53,000. This savings is less than the threshold amount for small, scheduled operators.

Federalism Implications

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this rule would not have federalism implications requiring the preparation of a Federalism Assessment.

International Civil Aviation Organization and Joint Aviation Regulations

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with ICAO Standards and Recommended Practices (SARP) to the maximum extent practicable. For this amendment, the FAA has reviewed the SARP of Annex 6, Parts I and II, applicable to international commercial air transportation operations and international general aviation operations respectively. The FAA has determined that this rule would not present any differences.

Paperwork Reduction Act

This rule contains no information collection requests requiring approval of the Office of Management and Budget pursuant to the Paperwork Reduction Act (44 U.S.C. 3507 *et seq.*).

Conclusion

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Statement, the FAA has determined that this regulation is not significant under Executive Order 12866. In addition, it is certified that this rule will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. This rule is not significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979).

The Amendment

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR parts 1, 91, 121, 125, and 135 effective February 26, 1996.

The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1153, 40101, 40105, 44113, 44701–44705, 44707–44717, 44722, and 45303.

this action emphasizes the existing prohibition in all aircraft against the use of lap-held child restraint systems (including belly belts). This action is needed because the FAA has determined that, during an aircraft crash, the banned devices may put children in a potentially worse situation than the allowable alternatives.

FOR FURTHER INFORMATION CONTACT: Donell Pollard, Air Transportation Division (AFS-203), Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-3735.

SUPPLEMENTARY INFORMATION:

Background

The FAA is concerned about the safety of children who use certain forms of child restraint systems aboard aircraft. In 1992, the FAA set forth in §§ 91.107(a), 121.311(b), 125.211(b), and 135.128(a) the child restraint systems acceptable for use in aircraft by imposing labeling requirements and certain use requirements. Since that time the FAA has supplemented these rules with advisory material and with a public information leaflet entitled, "Child/Infant Safety Seats Recommended for Use in Aircraft."

In September 1994, the FAA issued a report entitled, "The Performance of Child Restraint Devices in Transport Airplane Passenger Seats" (the "CAMI" study). The study found that, as a class of child restraint devices, shield-type booster seats, in combination with other factors, contributed to an abdominal pressure measurement higher than in other means of protection while not preventing a head impact. The study found that fundamental design characteristics of shield-type booster seats made their belt paths incompatible with aircraft seat belts. In addition, the study found that vest- and harness-type devices allowed excessive forward body excursion, resulting in the test dummy sliding off the front of the seat with a high likelihood of the child's entire body impacting the seat back of the seat directly in front of it. Rebound acceleration presented further risk of injury. Also, the study found that belly belts allowed the test dummy to make severe contact with the back of the seat in the row in front of the test dummy and that a child may be crushed by the forward bending motion of the adult to whom the child is attached. The research involved dynamic impact tests with a variety of certified child restraints installed in transport airplane passenger seats at the 16g peak loads required in 14 CFR § 25.562(b)(2). Some of the tests of child restraint systems were configured to represent a typical multi-row seat installation and included testing the effects of the occupant impact against the backs of seats. The tests investigated transport airplane passenger seat compatibility with child restraints. A copy of the study is included in the rulemaking docket established for this rulemaking.

On May 19, 1995, the FAA issued Notice of Proposed Rulemaking (NPRM) No. 95-7 (60 FR 30690, June 9, 1995). The NPRM proposed to withdraw FAA approval for the use of booster seats and vest- and harness-type child restraint systems in aircraft during takeoff, landing, and movement on the surface. In addition, the NPRM emphasized the existing prohibition against the use in all aircraft of lap-held child restraint systems (including belly belts). The rule language adopted by this final rule has not been changed from the rule language that was proposed.

Also, in June 1995, the FAA issued a Report to Congress concerning Child Restraint Systems. A copy of this report is included in the rulemaking docket established for this rulemaking.

Under present regulations a child who has not reached his or her second birthday (infant) is not required to have a separate seat aboard an aircraft. This means that the person accompanying an infant may choose to hold the infant during flight. If the accompanying adult wishes to put the infant in a child restraint system on a passenger seat, the airline may require the adult to purchase a separate ticket for the infant. Whether or not the airline requires the purchase of a ticket for the infant, a separate passenger seat is required if a child restraint is to be used (14 CFR §§ 121.311(c), 125.211(c), and 135.128(b)).

a common approach to an approval of standards for aircraft use. The current Standard (FMVSS) No. 213 (49 CFR § 571.213) was amended to provide criteria for manufacturers' self-certification of child restraints that were appropriate for both aircraft and automobiles.

FMVSS No. 213, as revised, is the current U.S. standard, and has allowed hundreds of models of seats to be approved, including booster-type child restraint systems ("booster seats") and vest- and harness-type devices. The current FAA child restraint rules do not specifically refer to FMVSS No. 213. However, FMVSS No. 213 is the basis for the labels required under the FAA rules.

The current FAA rules on child restraint systems permit the use of child restraint systems only if they bear a proper label(s), meet certain use requirements, and meet adult accompaniment requirements.

Approved labels fall into three categories as follows:

1. Seats manufactured to U.S. standards between January 1, 1981, and February 25, 1985, must bear a label that states "This child restraint system conforms to all applicable Federal motor vehicles safety standards." However, vest- and harness-type child restraint systems manufactured before February 26, 1985, are not approved for use on aircraft even if they bear this label.

2. Seats manufactured to U.S. standards on or after February 26, 1985, must bear the following two labels:

- (i) "This child restraint system conforms to all applicable Federal motor vehicle safety standards"; and

- (ii) "THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIR-CRAFT", in red lettering.

3. Seats that are not manufactured to approved U.S. standards must bear either a label showing approval of a foreign government or a label showing that the seats were manufactured under the standards of the United Nations. While the current rule language disallows vest- and harness-type child restraint systems manufactured before February 26, 1985, some of these systems manufactured after that date meet U.S., foreign government, or United Nations requirements.

The use requirements for child restraint systems are as follows:

1. The restraint system must be properly secured to an approved forward-facing seat or berth;
2. The child must be properly secured in the restraint system and must not exceed the specified weight limit for the restraint system; and
3. The restraint system must bear the appropriate label(s).

Because lap held child restraint systems (belly belts) are not secured to a forward-facing seat or berth, but instead are secured to the adult, they cannot be used under existing rules. Nonetheless, the FAA has decided that it is important to emphasize this prohibition and has added clarifying language to the existing rules.

The adult accompaniment provisions for child restraint systems require that the child be accompanied by a parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight.

Discussion of Comments

The FAA received ten comments in response to the proposed rule. The comments were received from Little Cargo, Inc., a child restraint manufacturer; the Association of Flight Attendants (AFA); the Air Transport Association of America (ATA); United Air Lines, Inc. (UAL); two members of the Asia Pacific Cabin Safety Working Group (APCS Working Group); Cosco, Inc., a child restraint manufacturer;

training. No data were presented by CAL or other commenters on any cost issues. Compliance costs, however, are discussed in the economic analysis set out in this preamble.

AFA, while supporting the proposal, stated that it continues to actively pursue the mandatory use of child restraint devices. In addition, AFA disagreed with the FAA assertion that if parents must purchase a separate seat to use an approved child restraint device, they would drive rather than fly. They stated that the FAA assumptions on this issue are unrealistic and flawed and do not take into account the impact of low-cost airlines and their enormous appeal to the family/tourist end of the travel market. The AFA stated that a family who is predisposed to buy a ticket would go ahead and purchase a separate ticket to use with an approved and recommended child restraint device.

FAA Response: The FAA has evaluated the costs and benefits associated with child restraint devices three times since 1990. The first report was prepared in 1990, the second report in 1993, and the third report in June 1995. AFA's comment was based on information contained in the second report. The third report, submitted to Congress on June 7, 1995, analyzed alternative scenarios. The scenario analyses concluded that if any significant charge is made for infant occupancy of a seat, the expected result is diversion to automobiles and a net increase in infant and adult fatalities and injuries. The study referenced by AFA was based on information from the second report. The AFA study simply documented observed market behavior associated with the entry of low cost carriers into a market and found that average fares fall and passenger volume increases. These findings are consistent with the FAA's findings and conclusions in all three studies on this issue. In addition, the FAA agrees with the AFA that a family who is predisposed to buy a ticket would purchase a separate ticket to use with an approved and recommended child restraint device. The above studies, however, indicate that very few families seem predisposed to purchasing tickets for their infants.

ATA commented that it was concerned about enforcement issues caused by labels in a foreign language and the problem of determining whether a child is within the weight restrictions for a restraint system. The ATA is also concerned about the overall effectiveness of child restraint systems. In addition, ATA stated that steps must be taken to address the problem of inconsistent FAA guidance and recommended that industry bodies assist the FAA in identifying possible problem areas before they arise.

FAA Response: This rulemaking prohibits the use of booster seats and vest- and harness-type devices by children, even if they bear an approved label. Therefore, enforcement issues concerning labels in foreign languages are not relevant to this final rule. Nor is the question of whether the child is within the weight limits specified on the label.

The FAA acknowledges ATA's concern that there could be compliance problems concerning child restraint devices that bear labels indicating that they are certified for use aboard aircraft when in fact they are not approved for use aboard aircraft. A companion rule issued by NHTSA, published in today's *Federal Register*, amends a provision in FMVSS No. 213 that permits booster seats and vest- and harness-type devices to be certified for use in aircraft. In view of the FAA's decision to withdraw approval of booster seats and vest- and harness-type devices for use on aircraft, NHTSA believes continuing to permit the certification of those restraints for aircraft use will likely be confusing to the public. Accordingly, NHTSA's rule no longer permits those restraints to be certified for aircraft use, and instead requires manufacturers to label these restraints as not certified for use in aircraft. Also, in conjunction with this rulemaking, the FAA will embark on a public education program designed to provide parents with the information necessary to make an informed decision about the use of child restraint devices on aircraft. The FAA understands that parents may be confused when trying to determine what type of child restraint device is best for their child. If clear guidance is readily available to parents concerning child restraint devices for aircraft, the FAA expects that they will choose an approved device in order to provide the safest traveling environment for their children. The FAA needs the assistance of air carriers, however, to enforce the regulations.

With regard to the ATA's recommendation that industry bodies assist the FAA in identifying possible problem areas before they arise, the FAA always welcomes input from industry and will continue to

FAA Response: In response to Little Cargo's concern that only one type of test was performed on the vest- and harness-type device, the FAA notes that during dynamic testing, unacceptable head and body excursions and vertical displacement of the anthropomorphic test dummy was observed to the extent that the type of instrumented tests that other child restraint devices underwent was deemed not necessary for the harness. If the unsafe characteristics that all these devices share change in the future, the prohibition can be re-examined.

Little Cargo also stated that the FAA has significant performance concerns with all available forward facing child restraints, but is only prohibiting certain categories of these devices, including vest- and harness-type devices.

FAA Response: When considering which, if any, child restraint devices should be prohibited, the FAA looked at the alternatives available for children within the weight limits specified by child restraint manufacturers. The FAA has determined that most children who are within the weight specifications of booster seats (30 to 60 pounds) would be better protected in a passenger seat lap belt than in a booster seat because there would be less abdominal loading in a lap belt. For a child in the 30 to 60 pound range, a lap belt should remain across the pelvis and not directly load the abdomen. Because forward facing devices have rigid backs, unlike booster seats, the FAA has determined that children in the 30 to 40 pound range would be better protected in a forward facing device than in a booster seat because there is a decreased risk of abdominal loading in a forward facing device than in a booster seat. In addition, the FAA determined that children who are within the manufacturer's weight specifications of vest- and harness-type devices (25 to 50 pounds) would be better protected in a passenger seat lap belt or a forward facing child restraint device than in a vest- and harness-type device. Forward facing child restraint devices are designed for children from 20 to 40 pounds. While some forward facing child restraint devices do not provide a desired level of protection in a worst case survivable aircraft crash, there are no better alternatives available at this time. Also, because forward facing devices and passenger seat lap belts prevent the extreme body excursions observed in the harness test, most children within this weight specification for vest- and harness-type devices (25 to 50 pounds) would be better protected in either forward facing devices or lap belts.

In addition, Little Cargo stated that, in Notice No. 95-7, the FAA concluded that children weighing between 25 and 50 pounds, and even children under 2 years old, would be safer in a passenger seat lap belt than in a vest restraint. Little Cargo is concerned that using lap belts as the sole restraining device places enhanced stress on a child's abdomen that could lead to injury.

FAA Response: While the FAA stated that, if a child under 2 falls in the weight use limits recommended by vest and harness manufacturers, the child would be safer in a passenger seat restrained by a lap belt than in a vest- or harness-type device if no other approved device were available, the FAA went on to state that a child falling within the weight limits of a vest- or harness-type device (25 to 40 pounds), would be better protected in a forward facing child restraint device than in a lap belt. In addition, the study noted that the lap belt remained across the pelvis of the 24-month old dummy throughout the impact and did not appear to directly load the abdomen. Thus, CAMI testing indicates that Little Cargo's concerns about abdominal loading are unfounded.

Little Cargo also questioned whether the impact of excessive submarining is not potentially safer than the excessive head excursion/head strike observed with 6 out of 8 forward facing restraints. Similarly, Cosco questioned why there is more concern for abdominal loading than the high HIC levels evidenced in the forward facing child restraint devices.

FAA Response: While forward facing child restraint devices may not presently provide a desired level of protection in a worst case survivable aircraft crash, there are no better alternatives available at this time. Although Little Cargo and Cosco questioned if submarining is better than the head injury threat seen with forward facing devices, it is important to note that neither the booster seats nor the vest- or harness-type device tested by CAMI performed in a manner that would prevent head impact.

FAA Response: The FAA has determined that at this time all vest- and harness-type devices have certain inherent critical design factors that preclude them from performing adequately in an aircraft seat. The testing, while only performed on a small sample of such devices, confirmed the basic problems with the design of the devices.

In regard to the FAA's request for comments on whether abdominal loading by itself is a predictor of injury, Cosco stated that rulemaking cannot be predicated on abstract numbers when the baseline for serious injury is undetermined. Cosco also stated that shield-type booster seats keep lap belts off a child's stomach whereas lap belts might become repositioned over the stomach because children often move around so much while in the lap belt.

FAA Response: The FAA acknowledges that the baseline for serious injury from abdominal loading is undetermined. However, the CAMI study found that shield-type booster seats, in combination with other factors, contributed to an abdominal pressure measurement higher than in other means of protection. In certifying aircraft seats and belts, any evidence of abdominal loading is considered grounds for disapproving a design. For many years, the FAA has not approved any design of passenger restraint that showed evidence of imposing restraint loads on the abdomen. It is accepted practice among restraint designers that the abdomen is not a load-carrying body segment. The unique nature of airline seats, where seat back breakover will cause a child in a booster seat to be crushed between the booster seat's shield and the crash forces of the adult in the row behind, are of sufficient concern to the FAA to prohibit the use of booster seats in aircraft during takeoff, landing, and movement on the surface.

The FAA notes that Cosco, like the FAA, seems concerned about the dangers of abdominal loading. In its comment, Cosco states that "in motor vehicles, children often move around so much that the lap belt becomes repositioned over the stomach, where it can cause serious injury in even a minor crash Therefore, a shield booster, which keeps the lap belt off the child's stomach would be a significant improvement in most cases" In addition, Cosco states that shield-type booster seats, which keep a lap belt off a child's stomach, would be a significant improvement in rough landings, even if its crash protection were less than a lap belt alone (since survivable crashes are so rare).

FAA Response: Performance data on the effectiveness of child restraint devices in "rough landings" are not available. However, because aircraft seat belt anchor points are located considerably forward of their location in a car, it is unlikely that an aircraft seat belt will move up into a child's abdomen.

Cosco also stated that parents would be more willing to carry a small booster seat rather than a larger forward-facing child restraint device. Cosco believes that they are then more likely to have the appropriate restraint for the child when they reach their destination and it will be the one that they are familiar with. Cosco states that by banning booster seats, parents will be less likely to have an appropriate restraint for their children when they reach their destination.

FAA Response: The FAA would like to clarify that the rule as proposed and adopted prohibits the use of booster seats only during take off, landing, and movement on the surface. It does not prohibit their use inflight. Therefore, parents can consider their booster seats as carry on baggage, use the restraints during the cruise portion of flight, and still have them readily available when they reach their destination. These devices can be stowed in overhead bins, in coat closets, or in some cases under seats. Except for storing the devices during takeoff, landing, and movement on the surface, this process is no different than the process a parent would go through before the prohibition. While the FAA encourages parents to use devices that may be used throughout the flight, the devices banned by this rule may be used during cruise.

Cosco also believes that parents may opt to fly with children on their laps rather than carry on a forward-facing or convertible child restraint device. They also stated that an educated parent would not buy a ticket in order to use an approved child restraint device instead of a vest- and harness-type device. They stated that a harness is much more convenient to carry around than a convertible

to buy a ticket for a separate airplane seat for use with a booster seat or vest- and harness-type device and who have received education on the effectiveness of the allowable alternatives in advance of purchasing tickets would purchase a ticket for a separate seat in order to use an approved and recommended child restraint device.

In addition, Cosco commented that, of the four booster seats tested, head excursions for two did not exceed the limits set forth in FMVSS No. 213.

FAA Response: Although Cosco stated that of the four booster seats tested, two did not exceed the limits of FMVSS No. 213, in actuality one of the two booster seats that supposedly did not exceed the limits of FMVSS No. 213 disintegrated during the test and could not be analyzed for head excursion. The fact that of the four booster seats tested, head excursion for one did not exceed the limits set forth in FMVSS No. 213 is not relevant to the decision to ban shield-type booster seats. As discussed earlier, seat back breakover, a unique feature of aircraft seats, presents a threat of abdominal injury. Backless booster seats, by virtue of fundamental design characteristics, do not provide protection from this threat. That one of the four booster seats tested did not exceed the head strike envelope specified in FMVSS-213 has no bearing on the threat of abdominal injury.

Cosco also stated that the primary benefit of child restraints on aircraft is to restrain children in the event of turbulence. They stated that while certain types of child restraint devices do not perform well in crash situations, this should not preclude their overall use since crashes are rare while turbulence is not.

CAA was also concerned about prohibiting devices that can prevent injury in common occurrences such as flight turbulence.

FAA Response: The FAA is not prohibiting the use of booster seats and vest- and harness-type devices in cruise portions of flight. The FAA acknowledges that booster seats and vest- and harness-type devices might prevent injuries during turbulence and therefore is not prohibiting their use during cruise portions of flight.

Cosco stated that a design-restrictive ban precludes development of future products that may prove safe and would be more convenient for parents to use.

FAA Response: The FAA has determined that, at this time, booster seats and vest- and harness-type devices put children in a potentially worse situation than the allowable alternatives. If in the future a manufacturer designs such a device that the FAA determines is a safe alternative, it will review the prohibition. The FAA must, however, prohibit booster seats and vest- and harness-type devices at this time because of safety concerns. The FAA cannot delay this rule with the thought that a manufacturer might design a safe booster seat or vest- and harness-type device in the future or that such a ban precludes a manufacturer from development future products that may prove safe and convenient.

CAA stated that in a significant proportion of the cases where passengers carry small children on aircraft, the alternative to travel by private car will not be viable, so these passengers will continue to travel by air, notwithstanding the additional cost. CAA also states that it is reasonable to conclude that there will be an increase in the number of people who will carry their children without any form of restraint if this continues to be permitted.

FAA Response: The FAA's 1995 study on the costs and benefits associated with child restraint devices addresses CAA's comment that the alternative to travel by private car will not be viable, so passengers will continue to travel by air notwithstanding the additional cost. While the FAA agrees that a significant number of families taking long trips will continue to do so even if a charge is imposed for passenger seats occupied by infants, the scenario analyses concluded that if any significant charge is made for infant occupancy of a passenger seat, there will be some passenger diversion to automobiles and a net increase in infant and adult fatalities and injuries. The scenario analyses also concluded that families taking longer trips are less likely to divert to alternative modes of transportation than people taking shorter trips. The FAA agrees that there are cases where parents would fly rather than not take

FAA Response: The FAA would like to emphasize that belly belts are not permitted under current regulations. Even if belly belts do provide some measure of protection, the CAMI study found that belly belts allowed the test dummy to make severe contact with the back of the seat in the row in front of the test dummy and that a child may be crushed by the forward bending motion of the adult to whom the child is attached. Consideration of revising this current prohibition is beyond the scope of the notice.

The JAA also stated that in a crash or severe air turbulence, parents are often unable to keep a lap-held child in their arms.

FAA Response: As discussed earlier, the FAA has determined that mandating child restraint devices could cause more deaths and injuries than it would prevent. However, the FAA does not encourage lap-holding children. The FAA expects, with its education campaign providing clear guidance on child restraint devices, parents will choose an approved device, rather than lap holding their children, in order to provide the safest traveling environment for their children. The two members of the APCS Working Group submitted identical letters that discussed the need to mandate restraints for children. In addition, they stated that the FAA's argument that the extra cost to families caused by mandating child restraint devices would force them to less safe road travel is invalid since the same cost situation arises when the child is 3 or 4 or 10 years old.

FAA Response: The APCS Working Group's argument is that the extra cost to families of mandating child restraint devices is no more of a deterrent to air travel than the price of a ticket for a child of any age. However, the FAA notes that this argument does not take into account that ordinarily there is no charge for a lap-held child, whereas certificate holders very often do charge if a seat is requested for this infant. Thus, many people would switch to less safe automobile travel as a result of mandating child restraint usage because unlike most rulemakings where the compliance costs are passed along to all travelers, mandatory use of child restraint would impose compliance costs only on families with infants.

Other commenters raised comments that are beyond the scope of this rulemaking, such as providing design/certification standards for child restraint systems that are compatible with existing aircraft seat belt systems, revising FMVSS-213, changing anchor locations of seat belts, adopting performance standards for child restraint systems, changing labeling requirements on child restraint systems, establishing a child restraint friendly section of aircraft with modified seats, and clarifying what types of restraints are acceptable.

Editorial Note

The rules, as adopted, make it clear that, while the certificate holder has the authority to provide a child restraint system, such a system must be one authorized by the rule. This is to avoid any misinterpretation of this provision as an exception to the prohibitions adopted in this final rule.

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1980 (Pub. L. 96-511), there are no requirements for information collection associated with this final rule.

Economic Analysis

Changes to Federal regulations are required to undergo several economic analyses. First, Executive Order 12866 directs each Federal agency to propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic effect of regulatory changes on small entities. Third, the Office of Management and Budget directs agencies to assess the effect of regulatory changes on international trade. With respect to this regulation, the FAA has determined that it: (1) is "a significant regulatory action" as defined in the Executive Order; (2) is significant as defined in the Department

the use of all booster seats and vest- and harness-type child restraint systems during these phases of a flight. The restrictions on the use of these devices will need to be incorporated into flight attendant training and included in flight manuals, and this will impose additional costs on air carriers. For a period of time after the rule becomes effective, there will also be some public education necessary and potential flight delays when flight attendant tell parents who brought prohibited child restraint devices on board the aircraft that the devices are banned for use during takeoff, landing, and movement on the ground. The FAA has determined that booster seats and vest- and harness-type devices put children in a potentially worse situation than the alternatives during an aircraft crash. According to the CAMI study, these child restraint systems do not securely hold a child in place in an aircraft crash, and may themselves even cause harm to a child in the event of a crash. These types of accidents, while they rarely happen, usually occur during the takeoff or landing phases of a flight. Thus, prohibiting the use of these child restraint systems during takeoff and landing will enhance the child's safety, and the safety benefits will outweigh the slight compliance costs discussed above. Since it is impractical to expect flight attendants to monitor whether children are out of banned devices just prior to takeoff, the FAA is prohibiting the use of these devices during movement on the surface also.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily or disproportionately burdened by Federal regulations. The RFA requires a Regulatory Flexibility Analysis if a rule will have "a significant economic impact on a substantial number of small entities." FAA Order 2100.14A outlines FAA's procedures and criteria for implementing the RFA. Small entities are defined as independently owned and operated small businesses and small not-for-profit organizations.

This rule will impose some unquantified costs on air carriers. These costs include changing manuals and training flight attendants about the restrictions on the use of certain child restraint devices. Initially, there may be some public education necessary and possible flight delays when flight attendants tell parents or guardians that they may not use certain child restraint devices during ground movement, takeoff, or landing. However, the FAA believes that this rule will not have a significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

This rule will not constitute a barrier to international trade, including the export of American goods and services to foreign countries and the import of foreign goods and services to the United States.

Federalism Implications

The regulations herein will not have substantial direct effects on the states, on the relationship between the national government and that of any state, or on the distribution of power and responsibilities among the various levels of government. The respondents affected by the amendments are private citizens, not state governments. Therefore, in accordance with Executive Order 12612, it is determined that this regulation will not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Conclusion

Because of the substantial interest of the public in this subject matter, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Analysis, the FAA has determined that this regulation is a significant regulatory action under Executive Order 12866. For the same reason, this rule is considered significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). In addition, it is certified that this rule will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. Because the economic impact of this rule is considered minimal, a formal regulatory evaluation has not been prepared.

Aircraft Flight Simulator Use in Pilot Training, Testing, and Checking and at Training Centers**Adopted: May 23, 1996****Effective: August 1, 1996****(Published in 61 FR 34508, July 2, 1996)**

SUMMARY: This final rule implements new regulations that contain certification and operating rules for training centers that will use aircraft flight simulators and flight training devices for pilot training, testing, and checking. This rule will increase the use of flight simulators and flight training devices by permitting their use for most airman certification training, testing, and checking tasks. This use of simulation for training, testing, and checking is more liberal than that currently permitted under the Federal Aviation Regulations. The training center concept will provide a common source for standardized, quality training accessible to any individual or corporate operator and air carriers. This action is consistent with a state-of-the-art training concept and recognizes industry recommendations for the expanded use of sophisticated flight simulation. The new rule also adds regulations regarding Category III instrument landing system operations.

FOR FURTHER INFORMATION CONTACT: Warren Robbins, Airman Certification Branch (AFS-840), General Aviation and Commercial Division, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-8196.

SUPPLEMENTARY INFORMATION:**Availability of Final Rules**

Any person may obtain a copy of this final rule by submitting a request to the Federal Aviation Administration, Office of Rulemaking (ARM-1), 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267-9677. Communications must identify the notice number of this final rule.

Persons interested in being placed on the mailing list for future rules should request from the above office a copy of Advisory Circular No. 11-2A which describes the application procedure.

Background

Flight simulation technology has shown enormous advancement during the past 30 years. The Federal Aviation Administration (FAA) has permitted greater use of aircraft flight simulators and flight training devices in training, testing, and checking airmen. The increased complexity and operating costs of the modern turbine-powered aircraft and the current operating environment have created an even greater need for the use of flight simulators and flight training devices. In many cases, flight simulators have proven to provide more in-depth training than can be accomplished in the aircraft. The use of flight simulators and flight training devices in lieu of aircraft has resulted in a reduction in air traffic congestion, noise and air pollution, and training costs. The increased use of flight simulators is also consistent with the national policy for fuel conservation.

Flight simulators provide a safe flight training environment. They may reduce the number of training accidents by allowing training for emergency situations, such as fire, total loss of thrust, and systems failures, that cannot be safely conducted in flight. The FAA has traditionally recognized the value of flight simulation and has awarded credit for the completion of certain required training, testing, and checking by use of simulation.

The first aircraft flight simulators approved by the FAA were relatively unsophisticated and were authorized for only a limited number of maneuvers and procedures. As flight simulator technology developed,

Subsequently, the FAA issued Amendments 61-62 and 121-108 (38 FR 35443; December 28, 1973), effective December 19, 1973. These amendments, in part, revised parts 61 and 121 by authorizing certain maneuvers and procedures of the pilot-in-command proficiency check to be performed in an approved visual flight simulator, if the pilot being checked accomplished two landings in an airplane of the same type.

The FAA issued Amendments 61-69 and 121-161 (45 FR 44176; June 30, 1980), effective July 30, 1980, that further expanded the use of advanced flight simulators for air carriers. Amendments 61-69 and 121-161 formed the basis of the Advanced Simulation Plan, which included Phase I, II, IIA, and III flight simulators (part 121, appendix H).

Since the infancy of simulation training, the training roles of several elements of the aviation community have expanded, most notably those of part 121 and part 135 certificate holders providing training for other certificate holders. Also, aircraft manufacturers are providing more simulation training now than they did in the past. This expansion has led to an ever-increasing need to issue exemptions.

In June 1988, the FAA received from a joint industry/FAA task force¹ several recommendations on the expanded use of flight simulators in new and innovative training programs. The recommendations included (1) Establishing a training center certificate for a separate training entity certificated to conduct training, testing, and checking under 14 Code of Federal Aviation Regulations parts 61, 63, 91, 121, 125, 135, and 141; (2) centralizing an approval process for course programs and check airmen at the national level, with local approvals only for specialty (local or unique) courses; and (3) expanding and standardizing the use of flight simulators and flight training devices, while at the same time providing relief from certain provisions of part 121, appendix H. The task force recommended single point oversight of a certificate by the FAA (instead of separate Flight Standards District Offices (FSDO's) approving centers in their geographic areas), defining training center recordkeeping requirements, and providing relief from the medical certificate requirements for instructors and check airmen conducting training in only flight simulators and flight training devices. The task force submitted aircraft manufacturer recommendations as an addendum recommending that a manufacturer's training center provide the initial operating experience (IOE) for air carriers.

In April 1989, this task force examined the role of training centers that provide training, testing, and checking for air carrier and general aviation pursuant to contracts, particularly training using flight simulators and flight training devices. This task force, which was comprised of aviation representatives from special interest groups, aircraft manufacturers, air carriers, university flight departments, and training centers such as SimuFlite, FlightSafety International, and Northwest Aerospace Training Corporation, examined flight simulation instructor and evaluator issues, including prerequisites; initial and recurrent training; requirements for current medical certificates; necessary in-flight experience; training center issues such as recordkeeping, facilities, and equipment; and the training program approval process.

The formal recommendations of this task force were forwarded to the FAA in October 1989. Essentially, the task force recommended that the FAA standardize the use of flight simulators and flight training devices, provide a means to certificate entities called training centers, and permit the training centers to apply for national approval of core curriculums that could be used by individuals receiving training under parts 61, 121, 125, and 135. Following receipt of the recommendations, the FAA appointed an internal working group to consider the recommendations.

The FAA working group concurred with most of the recommendations of the task force and recommended that the FAA undertake a rulemaking project that would include the concept of a certificated training center.

¹This task force was later subsumed by the Air Transportation Personnel Training and Qualifications Advisory Committee, established by FAA Order 1110.115, May 2, 1990. Today it continues to function as an issues area by the same name under the Aviation Rulemaking Advisory Committee.

“Pilot, Flight Instructor, Ground Instructor, and Pilot Certification Rules,” proposed on August 11, 1995 (60 FR 41160), revises parts 61, 141, and 143.

“Training and Qualifications Requirements for Check Airmen and Flight Instructors,” proposed on February 22, 1996 (61 FR 6898), changes certain provisions of §§ 121.411, 121.413, 135.337, and 135.339.

“Part 121; Appendix H, Advanced Simulation Plan Revisions,” proposed on February 14, 1995 (60 FR 8490), updates and revises appendix H of part 121.

Discussion of the Amendments and the New Rule

General

This final rule addresses the following: (1) The creation of a new part 142 that contains certification rules and operating rules for training centers; (2) an expanded use of, and credit for, training, testing, and checking conducted in flight simulators and flight training devices in accordance with approved programs conducted at training centers to satisfy all or some of the requirements of SFAR 58, part 61, part 121, part 125, or part 135; and (3) new rules pertaining to Category III authorizations.

The advantage of the training center concept is that it is a common source for standardized, quality training, testing, and checking accessible to any individual, operator, and air carriers. Program approval will be standardized through national guidance, which should prove especially helpful for training centers operating in different FAA regions. The rules applicable to training centers apply nationwide, and training programs, except specialty training courses, are subject to approval by local FAA offices only after detailed review for compliance with national guidance. A key concept in the proposal is standardization of certain elements of training programs, notably: the extent of the use of simulation, the prerequisites for the use of simulation for specific tasks, and simulation instructor and evaluator qualifications.

The FAA proposed a national office to ensure standardization in simulation training. Several commenters supported the proposal to create a national office for standardization purposes. The FAA has decided not to create a national office at this time, however. In the present economic environment, government is increasingly exploring alternative methods of accomplishing many of its missions. Additionally, the FAA subscribes to the concept of decentralization of government to make it more responsive to the users, and accomplishing the objectives of this rulemaking without a national office is consistent with the precept of government decentralization. The FAA is convinced that it can attain and maintain the concept of standardization of simulation training by means more economical than creating a national office.

Detailed guidance will be provided to FAA inspectors and potential training center certificate applicants in the form of handbooks, advisory circulars, and FAA orders. The Flight Standards Service will appoint an ad hoc group of several persons from within existing resources with experience in subjects related to simulation training centers. The ad hoc group will process the initial certificate applications, training specifications, and curriculum approvals. It will ensure that those approvals are standardized nationally and that they represent a smooth transition of existing training programs to the new training regulations.

The Flight Standards Service also will train all its inspectors on features of part 142 training centers. It will provide detailed training to those inspectors who will have training center oversight responsibilities and to Principal Operations Inspectors (POI's) of air carrier certificate holders that may use a training center.

After the steps outlined above are accomplished and the initial workload of certificate applications is completed, the ad hoc group will be dissolved, and approval of training center certificate applications and oversight of training centers will be decentralized in accordance with existing FAA structure and management practices.

plus a training specification (similar to an operating specification for part 121 and part 135 operators). This approach will add flexibility to accommodate changing conditions without changing the certificate itself.

Part 142 allows training centers that do not hold a part 121 or part 135 operating certificate to use approved flight simulators and approved flight training devices for airman training, testing, and checking. This rule also changes certain sections of parts 61, 121, 125, and 135 to provide a mechanism for crediting training, testing, and checking in flight simulators toward some of the aeronautical experience, testing, and checking requirements of 14 CFR. Part 121 and part 135 certificate holders will continue to train personnel under those parts; however, those certificate holders will be required to acquire a part 142 training certificate in order to conduct training, testing, and checking for persons not subject to those parts.

The authority to issue pilot certificates and the provisions permitting certain training, testing, and checking in a flight simulator or flight training device, rather than in an aircraft, remains in part 61.

Part 142 regulates training center certification and operation to ensure that qualified flight simulators or flight training devices are used in conjunction with approved courses and curricula. The benefits of completing a course of standardized instruction in a structured training environment, and in a timeframe that allows for a building-block approach to learning, has been recognized and is reflected in the part 141 flight experience prerequisites for pilot certificates. Thus, part 141 flight experience requirements were used as the basis for many of the part 142 initial requirements.

Part 141 Pilot Schools

Pilot schools certificated under part 141 may continue to operate as they do now. Certification of new pilot schools will also continue under part 141. A part 141 pilot school wishing to use a Level A through Level D flight simulator for more than the hours currently allowed in a pilot ground trainer as described in § 141.41(a)(1), however, will have to become certificated under part 142. (See Advisory Circular (AC) 120-40, *Airplane Simulator Qualification*, as amended, for the current descriptions of levels of flight simulators).

This rule does not include an increase in credits for use of simulators except in the structured environment created by part 142, or as may be individually approved for an air carrier. Part 141 pilot schools that desire to undertake training by use of more sophisticated simulation, in addition to training accomplished by aircraft and flight training devices, may become training centers certificated under part 142. They would apply for certification and course approval under part 142 in the same manner as other applicants.

Advanced Qualification Program (AQP)

This final rule has minimal impact on AQP. It provides the administrative structure for presentation of AQP to any group other than aircrews subject to a part 121 or part 135 approved training program who might receive the AQP training exclusively from their employing certificate holder. All AQP approval criteria, application procedures, instructor qualifications, recordkeeping, and data collection procedures, among others, remain as they are described in SFAR 58 or its superseding rules.

This final rule changes the definition of a training center that appears in SFAR 58 to make it compatible with that term as used in part 142; provides that trainers other than part 121 or part 135 certificate holders presenting an approved AQP to their aircrew employees will have to do so under a part 142 certificate; and allows persons other than part 121 or part 135 certificate holders to present training under AQP if that training is approved in accordance with SFAR 58.

Specific relationships between training center certificate holders and holders of AQP authorizations, and of training center certificate holders who become holders of AQP authorizations, are discussed in the section of this document entitled "Section-by-Section Summary of the Comments" which follows.

In this final rule, a flight simulator is defined as a full-sized replica of a specific type or make, model, and series aircraft cockpit, including the equipment and programs necessary to represent the aircraft in ground and flight operations. As defined, a flight simulator also includes a force cueing (motion) system providing cues at least equivalent to a three-degree of freedom motion system. A flight simulator is a device that is approved by the Administrator for uses that may lead to credit for aeronautical experience, required training, testing, or checking.

Devices such as airborne ILS simulators, ground trainers, instrument trainers, and flight trainers are not considered flight simulators or flight training devices under this part unless specifically evaluated and approved as such by the Administrator.

Flight Training Device

In several sections in this rule, flight training devices are listed with aircraft and flight simulators as permitted flight training equipment for various training, testing, or checking tasks of pilots, although no flight training device may exist for some tasks. The FAA intends to allow the possibility of approving flight training devices for training, testing, and checking a wide variety of tasks to allow and encourage the development of flight training devices in the future. By permitting the possibility of a wide variety of uses for flight training devices, which are generally less expensive than flight simulators, the FAA hopes to encourage the growth of simulation.

Section 61.1a defines a flight training device as a replica of an aircraft's instruments, equipment, panels, and controls that is located in an open flight deck area or in an enclosed aircraft cockpit. This definition includes the equipment and programs necessary to represent the aircraft in ground operations and flight conditions. As defined, a flight training device is not required to have a force cueing or visual system. However, like a flight simulator, a flight training device is a device that requires approval by the Administrator for all uses that may lead to credit for aeronautical experience, required training, testing, and checking.

Category III Operations

This rule recognizes that technological advances permit aircraft operated under part 91 to conduct Category III extreme reduced visibility landing approaches. Part 91, specifically §§ 91.191 and 91.205, proposed to include implementing requirements to conduct Category III operations. Part 61 has been amended to specify the training and testing requirements for Category III operations. Part 1, § 1.1, Category III approaches.

Simulated Instrument Flight Rules (IFR) Conditions

Some airmen have expressed concern about the meaning of the terms "simulated IFR conditions" or "simulated instrument conditions" in part 61. There appears to be confusion over whether these conditions can be achieved by the use of hood devices only. These terms are used throughout the 14 CFR to mean that instrument conditions may be simulated by artificially limiting pilot visibility outside the cockpit. Pilot visibility can be limited by a hood device, by artificially limiting visibility in an approved flight simulator or flight training device, or by other appropriate means. Section 61.45 permits the artificial limitation of visibility by these various means.

Tests and Checks

Generally, this rule uses the word "test" in lieu of the word "check." Specifically, this rule uses the terms "initial test," "recurrent test," and "practical test." These terms refer to an examination, whatever its nature, on which the applicant receives a grade, even though the grade may be only "pass" or "fail."

Normal Landings and Normal Takeoffs

The terms "normal landing" and "normal takeoff" are used in several places in the new or amended sections of part 61. "Normal" is meant to describe maneuvers that are not emergency maneuvers or those that are not done under abnormal conditions. A "normal" takeoff or landing includes those: (1) With different flight path angles, from steep to shallow; (2) with different configurations, such as flaps down or up; (3) to or from different surfaces, such as sod, concrete, and wet or slushy surfaces, or (4) made under various other circumstances that may be described in an aircraft flight manual. An emergency takeoff or landing is not a "normal" takeoff or landing. A takeoff or landing is not "normal" if it is labeled "abnormal" by the aircraft flight manual.

Easily Reached Controls

There has been some question about the meaning of the term "easily reached and operable in a normal manner" which appeared in § 61.45. This term, as amended, means that controls that are "easily reached" are those that can be reached by any airman or applicant seated in a designated pilot seat, with seat belts, shoulder harness, or other provided restraints fastened.

Conventional Manner

This rule also changes the term "normal manner," as it refers to the operation of an aircraft, to "conventional manner" and defines this term. This new definition should eliminate potential confusion associated with the use of such terms as "normal," "abnormal," or "emergency" performance. These different terms appear in many aircraft flight manuals and training curriculums. As used in this rule, in order to perform a normal, abnormal, or emergency maneuver in a "conventional manner," an applicant must use an aircraft that is equipped with one of the following: (1) A control wheel, stick, yoke, or cyclic control that in cruise flight, and in a forward movement, causes a decrease in pitch attitude, and rearward pressure causes an increase in pitch attitude; a left movement causes a bank to the left, and a movement to the right causes a bank to the right; and (2) rudder pedals or antitorque pedals which, when depressing the left pedal, cause the aircraft nose to yaw left and, when depressing the right pedal, cause the nose to yaw right. Aircraft with controls that operate differently than described above may still be used for a practical test, if the examiner determines that the flight test can be conducted safely in the aircraft.

Training Center

The characteristics of a training center are addressed in § 2 of SFAR 58 and several sections of part 142. Generally, it is defined as an entity that must hold an air agency certificate issued under part 142 and must comply with all applicable sections of part 142. It should be noted that whenever the term training center appears in this rule it includes satellite training center.

Supervised Operating Experience

Supervised operating experience (SOE) is experience required to remove certain limitations from an airman's certificate. The limitation that may be removed by SOE is a limitation on PIC privileges for a specified aircraft type issued to certain less-experienced pilots who use high level simulation only for all training and testing for a certificate, an added rating, or a certificate with an added rating. The required SOE must be accomplished by serving as PIC under the supervision of a qualified and current PIC in the airplane type to which the limitation applies. The SOE must be performed in the seat normally available to the PIC. The limitation may be removed by presenting evidence of the SOE to any FSDO. SOE parallels the operating experience requirement long a feature of air carrier training and qualification programs, but is less burdensome in that a current and qualified PIC instead of a check airman may provide the supervision. More detailed discussion on this matter follows in the response to comments about §§ 61.64 and 61.158.

Of the 328 comments received, 278 comments made reference to proposals contained in § 61.197 which addresses renewal of flight instructor certificates. (Of these 278 comments, 216 comments referenced only § 61.197, 62 referenced § 61.197 among other sections.) These comments, as well as those relating to §§ 61.187, 142.49, and 142.53 concerning instructor flight proficiency, training center instructor privileges and limitations, and training and testing requirements, were addressed in Notice No. 92-10A, a Supplemental Notice of Proposed Rulemaking (SNPRM) published in the *Federal Register* on February 19, 1993 (58 FR 9514). The remaining 50 commenters expressed both support and opposition to the proposals. Many of these commenters supported the NPRM in concept and purpose, and made various recommendations for textual revisions. Other commenters made recommendations with no statement of strong support or opposition to the proposals. For purposes of discussion, the comments have been grouped into several broad categories and are discussed in further detail below. Each comment is discussed in the section of this document entitled "Section-by-Section Analysis of the Comments."

General Issues Covered in the Comments

The following subjects received the most comments. These comments are responded to individually in a separate section of this document to follow entitled "Section-by-Section Summary of the Comments." The issues raised and the nature of the comments are summarized below:

1. The proposed definitions and guidelines regarding the use of flight simulators and flight training devices will ensure standardization of training.

Approximately 15 commenters supported the standardization of training offered by new part 142. Several of the commenters, including Simulator Training, Inc., (STI) and the Aircraft Owners and Pilots Association (AOPA), suggested that part 142 define and standardize training center operations, and reduce the number of exemptions required for the use of simulation. Additionally, the Air Line Pilots Association (ALPA) supported the standardized certification requirements proposed by part 142. ALPA stated that the certification process "will assure some level of minimum performance for these training centers, require accountability for training programs and equipment, and provide more consistent FAA oversight."

Northwest Airlines, Inc., (NWA) stated that "the proliferation of programs has reached a level where increased regulatory controls must be imposed." NWA and other commenters, including FlightSafety International (FSI), strongly supported the proposal of an FAA part 142 national office. These commenters suggested that the establishment of centralized resources would help to promote standardization and consistency in training and evaluation.

2. The requirements for obtaining a part 142 certificate are burdensome, costly, and over restrictive.

Approximately 30 commenters objected to various proposals for the part 142 certification process. The majority of these commenters specifically cited proposed §§ 142.17(b)(3) and 142.17(d), suggesting that they are unnecessarily burdensome and costly.

Fifteen commenters, primarily pilot schools, opposed the proposal that the principal business office of a part 142 certificate holder cannot be shared with another certificate holder. The commenters see this proposed restriction as imposing costly and unnecessary administrative duplication.

Various commenters indicated that the requirement that a training center own or lease at least one FAA-approved flight simulator would exclude many smaller training institutions from the benefits of part 142 participation due to costs and thereby preclude some students from receiving the benefits of advanced simulation training. In addition, several commenting part 121 certificate holders stated that if part 121 certificate holders are required to apply for a separate certificate under part 142, they would be required to purchase duplicate flight training equipment and facilities. They stated further that part 142 certificate holders would be precluded from leasing "dry" simulator time from part 121 certificate holders possessing such training equipment.

Several commenters, namely some individuals and the National Transportation Safety Board (NTSB), expressed concern regarding the reduced hours of actual flight experience proposed in various sections of the NPRM and posited that flight experience gained through the use of flight simulation cannot fully replace the operational experience gained in the actual flight environment.

Section-by-Section Analysis of the Comments

NWA suggested that some readers may have been confused by the structure of the NPRM, in that it set forth the proposed text, but did not show the text that remained unchanged. Asterisks were used to designate the text which the FAA proposed to leave unchanged. The use of asterisks for this purpose is consistent with the Federal Register's *Document Drafting Handbook*.

Several commenters said that several of the proposals should be deleted in this rulemaking and considered in the part 61, 141, and 143 review. The FAA carefully considered which topics to include in this rulemaking and which to include in the part 61, 141, and 143 review. Generally, if a topic relates to simulation, it was addressed in the NPRM for this rulemaking. Some other part 61 topics also are addressed in this rulemaking if it was necessary to revise the section for consistency of style and paragraph numbering.

SFAR 58

SFAR 58.2 Definitions

The FAA proposed in Notice 92-10 to make the definition of training centers in this section compatible with the definition of that term as contained in § 142.3.

Several commenters expressed the belief that the proposed definition was confusing or ambiguous. The FAA agrees that the definition should be more clear and has simplified the definition. The revised definition includes those persons who obtain, and operate under, a part 142 certificate, and those part 121 and part 135 certificate holders who present, under AQP, training that they are required to present under part 121 or part 135.

Other commenters suggested rewording the definition to exclude those training providers who already hold a part 121 or part 135 certificate, or those persons who might provide AQP training for those certificate holders. This is an issue of the applicability of part 142, which is discussed in the section-by-section analysis of § 142.1 and further defined in § 142.3.

SFAR 58.11. Approval of Training, Qualification, or Evaluation by a Person Who Provides Training by Arrangement

Delta Air Lines, Inc., (Delta) in a comment typical of several others, said that there appears to be no sound reason to change the existing SFAR 58 provision for approval of AQP training, qualification, or evaluation to be offered by a part 142 training center. It went on to say that approval under SFAR 58 of training programs, instructor or evaluator qualification, and use of training equipment should constitute approval under part 142.

The FAA agrees. The FAA had that intent when making the original proposals. For example, in the NPRM preamble discussion of § 142.39, the FAA stated:

“The FAA believes that approval of a curriculum under SFAR 58, Advanced Qualification Program (AQP), should, for that applicant, constitute complete approval of that curriculum for use by a training center certificated under part 142, since the AQP application contains curriculum criteria at least as detailed as the part 142 curriculum requirements set forth in proposed §§ 142.39 and 142.77.”

Several air carriers asked why the FAA proposed in this rulemaking to fix an expiration date for SFAR 58.

This section has been amended to include definitions for terms used in part 61. The following terms are defined:

(a) “Authorized Instructor” means:

- (1) An instructor who has a valid ground instructor certificate or current flight instructor certificate with appropriate ratings issued by the Administrator;
- (2) An instructor authorized under SFAR 58, part 121, part 135, or part 142 of this chapter to give instruction under those parts; or
- (3) Any other person authorized by the Administrator to give instruction under this part.

(b) “Flight Simulator, Airplane” means a device that—

- (1) Is a full-sized airplane cockpit replica of a specific type of airplane, or make, model, and series of airplane;
- (2) Includes the hardware and software necessary to represent the airplane in ground operations and flight operations;
- (3) Utilizes a force cueing system that provides cues at least equivalent to those cues provided by a 3 degree freedom of motion system;
- (4) Utilizes a visual system that provides at least a 45° horizontal field of view and a 30° vertical field of view simultaneously for each pilot; and
- (5) Has been evaluated, qualified, and approved by the Administrator.

(c) “Flight Simulator, Helicopter” means a device that—

- (1) Is a full-sized helicopter cockpit replica of a specific type of aircraft, or make, model, and series of helicopter;
- (2) Includes the hardware and software necessary to represent the helicopter in ground operations and flight operations;
- (3) Utilizes a force cueing system that provides cues at least equivalent to those cues provided by a 3 degree freedom of motion system;
- (4) Utilizes a visual system that provides at least a 45° horizontal field of view and 30° vertical field of view simultaneously for each pilot; and
- (5) Has been evaluated, qualified, and approved by the Administrator.

(d) “Flight Training Device” means a device that—

- (1) Is a full-sized replica of instruments, equipment, panels, and controls of an airplane or rotorcraft, or set of airplanes or rotorcraft, in an open flight deck area or in an enclosed cockpit, including the hardware and software for systems installed, necessary to simulate the airplane or rotorcraft in ground operations and flight operations;
- (2) Does not require a force (motion) cueing or visual system; and
- (3) Has been evaluated, qualified, and approved by the Administrator.

(e) “Set of airplanes or rotorcraft” means airplanes or rotorcraft which all share similar performance characteristics, such as similar airspeed and altitude operating envelope, similar handling characteristics, and the same number and type of propulsion system or systems.

Crew Systems, Andrews University, and an individual stated that definitions should not be in this section, but rather in part 1 of 14 CFR, and that the proposed definitions might have a different meaning to different people. The definitions contained in part 61 are applicable to that part of 14 CFR. Some of the words or terms might have a different definition in the context of a different part of 14 CFR. Only those definitions that have general applicability to all parts of 14 CFR are placed in part 1.

Airbus Service Company, Inc., (Airbus) recommended that this section be amended to include Air Transportation Ground Instructor, Air Transportation Flight Instructor, and Air Transportation Flight Instructor (Simulator Only) in the definition of authorized instructor.

The authority of the persons cited by Airbus to function as instructors is limited to service in part 121 or part 135. The persons with the instructor titles cited by Airbus are not necessarily holders of an FAA flight instructor certificate, and may perform certain flight instructor functions by virtue of holding an airline transport pilot (ATP) certificate. The privileges of persons cited by Airbus are not changed by this definition; they remain the same for the operating part for which the person was designated. Additionally, many of the persons cited by Airbus could qualify as an authorized instructor in other parts, including part 142. See the provision of § 61.1a(a)(2) as adopted.

One person stated that including the words "full-sized replica" in the definition of a flight training device precludes the approval of personal computer flight simulation technology.

The comment is accurate. The FAA is convinced that simulation has benefit only if behaviors learned can be transferred to the aircraft. The FAA is convinced that no effective transfer of learning has been demonstrated except from flight simulators and flight training devices that accurately replicate the performance of an aircraft. As discussed in the NPRM, AC 120-45, as amended, describes the minimum criteria for flight training devices which will result in replication of aircraft performance suitable for specific training, testing, and checking. The FAA has under development a new AC 120-46, "Use of Airplane Flight Training Devices (In Flight Training and Checking for Airman Qualification and Certification)," which will provide details about which tasks a particular level of flight training device may be used for training credit and which tasks one may be used for testing. At this time, no flight training aid based on what is commonly known as "personal computers" meets the criteria of AC 120-45. Accordingly, the use of personal computer flight simulation technology is considered unacceptable.

One commenter stated that this section, and all other proposed revised sections of part 61, should be deleted and considered in the phase II of the part 61, 141, and 143 review, which was referenced earlier as a related rulemaking project.

The FAA does not agree that this would be an appropriate action. The purpose of this rulemaking was to undertake a comprehensive review, and revision if necessary, of all rules with the potential for increasing the use of simulation for airman training, testing, and checking. Many of these rules are contained in part 61; therefore, the FAA proposed revisions to certain sections contained in that part.

§ 61.2 Certification of Foreign Pilots and Flight Instructors

This section proposed rules for training centers and their satellite training centers for issuing certificates and ratings outside the United States. Specifically, this section proposed that training centers, and their satellite training centers, certificated under part 142 of this chapter, be allowed to do the following outside the United States: (1) Add additional ratings and endorsements to certificates issued by the Administrator under the provisions of part 142; and (2) issue certificates to U.S. citizens within the authority granted to the training center by the Administrator.

The National Association of Flight Instructors (NAFI) commented that it has long been an FAA policy to not issue U.S. certificates or additional ratings to foreign nationals outside the United States.

The FAA agrees with the commenter that, under § 61.2, the FAA does not issue U.S. certificates to foreign nationals outside the United States unless issuance meets the need stipulated in that section.

Modern multinational corporations may operate aircraft of different countries of registry. The commenter has not provided sufficient rationale for imposing the U. S. certification restriction. The FAA has determined, therefore, that proposed paragraph (b) should not contain a restriction on need to operate an aircraft of U.S. registry.

Some commenters, namely United Airlines (United), Trans World Airlines (TWA), the Air Transport Association (ATA), and the Federal Express Corporation said, in essence, that the proposed part 142 sections that would permit the certification of training centers located outside the United States, and that would permit them to add additional ratings and endorsements, threatens the standardization concept of part 142 training centers and should be dropped.

The FAA plans to maintain standardization by providing adequate guidance on instructor and evaluator qualification, simulation approvals, curriculum approvals, and by emphasizing review and inspection of that guidance.

Other commenters indicated that maintaining standardization of training center activities for those training centers outside the United States will cause a workload on the FAA.

The FAA agrees that creation of foreign training centers will impose a workload on the FAA. See the FAA plan for compensation for the workload imposed by training centers outside the United States in the discussion of comments received in response to proposed § 142.20 (adopted as § 142.19), "Foreign training centers: Special rules."

For the reasons discussed, this section is adopted as proposed, except for editorial changes to make it clear that training centers prepare, train, and recommend applicants for a certificate or rating, but do not actually issue a certificate or rating unless the training center has specific authorization to issue airman certificates.

§ 61.3 Requirement for Certificates, Ratings, and Authorizations

The FAA proposed to amend the lead-in paragraph for § 61.3(d) and to add a new paragraph (i).

As proposed, paragraph (d) inadvertently would have prevented lighter-than-air instruction without a flight instructor certificate. That was not the intent of this rule. Therefore, language allowing such instruction without a flight instructor certificate is restored to paragraph (d) of this section. The FAA did not receive any comments on proposed paragraph (d), therefore, with this minor correction, paragraph (d) is adopted as proposed.

Proposed paragraph (i) prescribed requirements for pilot category III authorization. It reads as follows:

"(i) Category III pilot authorization.

(1) No person may act as pilot in command of a civil aircraft during Category III operations unless—

(i) That person holds a current Category III pilot authorization for that category or class of aircraft, and the type of aircraft, if applicable; or

(ii) In the case of a civil aircraft of foreign registry, that person is authorized by the country of registry to act as pilot in command of that aircraft in Category III operations.

(2) No person may act as second in command (SIC) of a civil aircraft during Category III operations unless that person—

(i) Holds a valid pilot certificate with category and class ratings for that aircraft and a current instrument rating for that category aircraft;

(ii) Holds an airline transport pilot certificate with category and class ratings for that aircraft; or

to conduct Category II and Category III operations, the FAA agrees with the commenters, and has added a new paragraph (j) to except part 121 and part 135 certificate holders from compliance with paragraph (i). Current paragraph (f) has been revised in this final rule to conform it to the format of new paragraph (i). The flush paragraph at the end of paragraph (f) has been replaced with a new paragraph (j).

§ 61.4 Qualification and Approval of Flight Simulators and Flight Training Devices

In this new section, flight simulators and flight training devices must be qualified and approved by the Administrator for training, testing, and checking, if the airman using flight simulators or flight training devices is to get credit to satisfy any part of 14 CFR. In addition, each particular maneuver, procedure, or crewmember function to be performed would be subject to the approval of the Administrator.

A few commenters suggested that flight simulators and flight training devices should not have to be approved unless the person using them expected to get some credit for that use to satisfy some requirement of 14 CFR.

The FAA agrees, and the rule text has been amended to clarify that only those flight simulators and flight training devices used to satisfy training, testing, or checking functions, as may be necessary to meet FAA regulatory requirements, must be qualified by the Administrator.

NAFI said that guidelines must be established to specify the requirements for qualification and approval of flight simulators and flight training devices to prevent FAA inspectors from arbitrarily applying their personal standards, and that, once a flight simulator or flight training device is approved by the FAA, the FAA should not require another inspector to approve another of the same make and model.

The FAA agrees that each FAA inspector should not arbitrarily determine standards for qualification and approval of flight simulators. The FAA has established guidelines and technical standards for flight simulators and flight training devices, in AC 120-40, as amended, and AC 120-45, as amended, respectively. These publications are available from the Government Printing Office and may be reviewed at any FSDO. These advisory circulars are made available to facilitate standardization, qualification, and recommendations for approval of particular maneuvers and procedures for each flight simulator and level 5 through 7 flight training device, as they are defined at this time. FAA inspectors may approve the use of flight simulators and flight training devices for the maneuvers and procedures of a particular curriculum. To help ensure standardization, the FAA will provide national guidance for approval of training programs for all part 142 training centers. This guidance should preclude widespread interpretation on the part of individual inspectors.

§ 61.13 Application and Qualification

The FAA proposed to revise paragraph (e) to make this section apply to Category III authorizations as well as to Category II authorizations. The revised paragraph reads as follows:

(e) The following requirements apply to a Category II pilot authorization and to a Category III pilot authorization:

(1) The authorization is issued by a letter of authorization as a part of the applicant's instrument rating or airline transport pilot certificate.

(2) Upon original issue the authorization contains a visibility limitation—

(i) For Category II operations, the limitation is 1,600 feet RVR and a 150-foot decision height; and

(ii) For Category III operations, each initial limitation is specified in the authorization document.

(3) Limitations on an authorization may be removed as follows:

instrument conditions that appears in § 61.13(e)(4), i.e., "... a flight simulator or flight training device may be used for simulated instrument conditions. . . ."

The FAA agrees with the suggestion of the commenters. Paragraph (e)(4) has been reworded to make it clear that an approved flight simulator may be used to meet the experience requirement of paragraph (e)(3) as well as to meet the Category II and Category III practical test requirements of part 61.

ATA and several air carriers commented that this proposal fails to include language excepting part 121 and part 135 certificate holders from compliance with this section. They point out that § 61.3 contains an exception for part 121 and part 135 operators from the qualification requirements for Category II operations.

The provisions of § 61.13 were not intended to apply to operations conducted by part 121 and 135 certificate holders since the FAA did not intend to propose, under § 61.3, that a letter of authorization be required for these operations. These parts prescribe their own requirements for such operations.

Proposed § 61.3 has been revised to make it clear that the exception for part 121 and part 135 certificate holders also applies to Category III authorization. (See the discussion of § 61.3).

Airbus suggested additional text for this section that would delete ILS approaches, because MLS, GPS, and other approaches are likely in the future.

The FAA agrees that the regulations need to be modified to reflect changing technology; however, this was not a subject of these proposals and cannot be addressed in this rule at this time.

Airbus also suggested that this section be amended to specify the quality of the simulated visual scene required for the practical test.

The FAA agrees that the quality of the simulated visual scene that may be used to complete the Category II or Category III practical test is of great importance. The sections of the rule that actually require and authorize training and testing to show competence in reduced visibility operations, §§ 61.3, 61.67, and 61.68, specify that the practical test must be accomplished under an approved training program of an air carrier for that air carrier's aircrews, or in an approved training program of a part 142 certificate holder. Training program approval criteria for each of those training programs specify, or will specify, that a flight simulator must be qualified and approved by the FAA for each maneuver, procedure, and crewmember task. Further guidance for the technical requirements of flight simulation is published in AC 120-40 and AC 120-45, as amended. The FAA believes that the quality control provided by the provisions described above is satisfactory. Quality of the visual scene in all modes of flight and the quality of simulation in general is a high priority for the FAA.

For the reasons discussed, this section rewords paragraph (e)(4) and is otherwise adopted as proposed.

§ 61.21 Duration of Category II and Category III Pilot Authorizations

In addition to a change in the title, this section proposed that Category II and Category III pilot authorizations would expire 6 months after last issued or renewed.

ATA and a few member air carriers commented that these proposals included a duration of authorizations that is too restrictive for part 135 and part 121 certificate holders.

The provisions of § 61.21 were not intended to apply to operations conducted by part 121 and 135 certificate holders since the FAA did not intend to propose, under § 61.3, that a letter of authorization be required for these operations. These parts prescribe their own requirements for such operations.

Proposed § 61.3 has been revised to make it clear that the exception for part 121 and part 135 certificate holders also applies to Category III authorization. (See the discussion of § 61.3).

Therefore, this section does not apply to a part 121 or part 135 certificate holder.

NAFI recommended minor editorial changes to the proposed rule text, and those minor changes were made in the final rule.

One commenter said that the proposals of this section should be withdrawn and considered in a subsequent review of part 61.

The FAA cannot defer the implementation of these proposals, since they relate to simulation testing, a subject covered by this rulemaking.

No other changes were suggested by commenters. Accordingly, except for editorial changes, this section is being adopted as proposed.

§ 61.45 Flight Tests: Required Aircraft and Equipment

Proposed paragraph (a) provides that an applicant may use a flight simulator or a flight training device for those tasks of a practical test for which the flight simulator or flight training device has been approved. Previously, this section did not clearly permit the use of flight simulators or flight training devices for practical tests.

Previously under part 61, a flight simulator or flight training device could be used only to demonstrate some SIC qualifications and also to train and test for the ATP certificate. NAFI commented that the FAA should complete guidelines to specify which maneuvers, procedures, and crewmember tasks can be trained, tested, or both, by use of each level of simulation. The FAA agrees, and is drafting such a document (AC 120-46) at the present time. (See also the response to comments about § 61.1).

ATA said, in a comment similar to several others, that the proposed amendments to this section are not necessary, since “. . . the purpose of the current rule was not to specify that an aircraft must be used for the flight test, but rather to prescribe the aircraft requirements for registration, airworthiness, and equipment.” ATA continues by observing that “Amendment 61.45, effective Feb. 2, 1970, clearly authorizes the use of simulators for part of the ATPC/TR flight test. . . .”

Current paragraph (a) of this section deals with the equipment an applicant must furnish for each test, as well as with the requirements for registration and airworthiness of that equipment. The wording of the current paragraph excludes any equipment except aircraft from being used for the practical test, except as provided in §§ 61.55 and 61.157. The proposed rule would allow simulation to be used for those tasks of the practical test for which the simulator is approved. The FAA considers this expanded use of simulation justified for reasons stated in the preamble to the NPRM. Accordingly, this section is adopted as proposed.

Jeppesen-Sanderson and AMR questioned how such tasks as cross-country skills, rectangular courses, S-turns across a road, and turns around a point can be evaluated by use of simulation.

At the date of this final rule, there are no flight simulators or flight training devices that have been approved to evaluate several tasks, including the examples offered by these commenters.

The intent in the proposal was to permit an increased use of simulation, in appropriate cases, without having to amend the rules each time that technological advances permit one of these tasks to be evaluated in flight simulation. With the assurance that simulation may be used to meet practical test requirements when it has the technical capability to do so, manufacturers of such devices should be encouraged to develop increasingly realistic simulation. Even with regulatory authority to use simulation for tasks of a practical test, simulation cannot be used for those tasks until the simulation medium has been developed, evaluated, and qualified by the FAA to evaluate such tasks.

Airbus commented that the proposed revisions are unworkable for an aircraft manufacturer's training center and, if implemented, would impose a severe economic burden on the training center and the part 121 operators it supports.

when conducting a practical test in an aircraft. However, evaluators and FAA inspectors currently may conduct the practical test from a jump seat, or some other location other than a pilot's seat. . . .” It recommended rewording to better state this practice.

The FAA agrees that the practice described by AMR has been and will be acceptable, and has reworded paragraph 61.45(c)(2)(ii) accordingly.

Proposed paragraph (d) provided that each applicant for a practical test that requires flight maneuvers and procedures to be accomplished solely by reference to instruments, must provide equipment that excludes the applicant's visual reference to objects outside the aircraft.

Airbus commented that proposed paragraph (d) is unnecessarily restrictive, in that it prohibits the use of vision-restricting devices that more realistically create the seeing conditions the pilot is likely to encounter during the instrument-to-visual transition, including visual illusions associated with maneuvering by visual reference to landing in restricted seeing conditions. Airbus suggests rewording the paragraph to allow equipment that restricts an applicant's visual reference to replicate what might be seen during a reduced visibility approach transition to a landing.

The FAA notes that this section is directed at maneuvers and procedures that must be done solely by reference to flight instruments; it was not intended to, and is not adequate to address, maneuvering partially by reference to instruments and partially by reference to obscure visual references to objects outside the cockpit. The FAA lists, in separate publications, what objects must be visible at a specified point on an instrument approach in order to continue by visual reference. The FAA is not aware of a device that can be used in an aircraft to obscure visibility of objects other than those listed for continuation of an instrument approach.

The FAA agrees with the commenter that this area of flight is critical. This is an area of flight that simulation can replicate much better than an actual aircraft. For simulation, the FAA requires that the simulated visual presentation be capable of displaying a scene with visibility as restricted as the visibility that the applicant will be authorized to observe when completing approaches. Guidance for scene presentation for simulation is contained in AC 120-40, as amended.

This section is adopted with the changes discussed.

§ 61.51 Pilot Logbooks

The FAA proposed to revise paragraph (b)(1)(ii) to allow pilots to log the time accrued in a simulated flight lesson. The proposed text read as follows:

“(b) * * *

(1) * * *

(ii) Total time of flight or lesson.”

AMR commented that the word “flight” should be added before “lesson.”

The FAA agrees and has changed the paragraph accordingly.

AMR also commented that the requirement of present paragraph (b)(1)(iii), which states “Place, or points of departure and arrival” is pointless in the context of a simulated flight lesson, as it is quite possible to conduct a simulator training session and have no point of departure or arrival.

The FAA agrees, and has changed the paragraph to except simulated flights from those sessions for which a point of departure and arrival must be entered.

As proposed, § 61.51(c)(2)(i) has been revised, including shifting the provision for recreational pilots to a new paragraph (iv), to make that paragraph easier to read. No substantive change has been made

used, not that it "must" be used, and that, in both the NPRM preamble and in the preamble to this final rule, a separate section entitled "Simulated IFR Conditions" is devoted to this discussion to make it clear that a variety of view-limiting devices may be used. Paragraph 61.45(d) as proposed and as adopted makes it clear that view-limiting devices, as well as flight simulation, are acceptable for practical tests.

Andrews University commented that paragraph (c)(4)(ii) is good in that it allows logging of flight simulator and flight training device time both with and without a flight instructor.

The FAA points out that this rule does not create any new authority for a pilot to log flight time in simulation equipment without an authorized instructor. On the contrary, this paragraph specifies that an authorized instructor must be present in order to log pilot time in flight simulation equipment. Further, § 61.51(c)(5) provides that all time logged as instruction time must be certified by the authorized instructor from whom it was received. This requirement is intended to ensure that an applicant's logbook reflects all required instruction which was provided by an authorized instructor.

With the amendment discussed, this section is adopted as proposed.

§ 61.55 Second-in-Command Qualifications

The FAA proposed in § 61.55(b)(4) that initial SIC qualification tests for a particular category and class or type of aircraft require at least one takeoff and one landing to be satisfactorily completed in an aircraft of that category, class, and type as applicable.

Several commenters expressed overall agreement with this proposed section.

Boeing and AIA commented that, if the simulator used is qualified for the landing maneuver, the use of an airplane is unnecessary.

The FAA believes that some minimal experience with the category, class, and type of aircraft, if applicable, is required for those SIC applicants not previously qualified in any capacity in an aircraft requiring a crew of more than one person. With the exception of the takeoff and landing that must be performed in the aircraft, the FAA believes that, based on its evaluation of the results of training and testing in flight simulators, the training and testing for SIC qualifications can be satisfactorily demonstrated in a part 142 training course that is subject to FAA approval.

Paragraph (b)(4) of this section was reworded slightly to make it clear that the requirement to complete only one takeoff and one landing in an actual aircraft applies only to persons who complete the rest of the requirements of this section in an approved course at a training center certificated under part 142.

§ 61.56 Flight Review

Under the previous § 61.56, the flight review could be performed only in an aircraft. A new paragraph 61.56(h) to this section proposed the use of flight simulators or flight training devices for the flight review if: (1) The flight simulator or flight training device is approved by the Administrator for that purpose; and (2) the flight review is accomplished in an approved course conducted by a training center certificated under part 142.

Jeppesen-Sanderson and the National Air Transportation Association (NATA), representing a consensus of General Aviation Manufacturers Association, Helicopter Association International, and others, commented that simulation should be allowed for the review, in approved courses conducted under part 141 or part 142.

The FAA does not agree that part 141 should be changed in this rule to allow pilot schools to conduct the flight review. Part 142 training centers may conduct flight reviews using simulation because they will have substantially more required in the way of training capability by having the following:

programs, could become training centers certificated under new part 142. There is no need to change the rules to allow part 121 certificate holders to conduct a course to satisfy § 61.56; several courses presented by part 121 schools already satisfy the requirements of § 61.56. In accordance with the current provisions of that section, a person need not accomplish the flight review if that person has satisfactorily completed a pilot proficiency check, or a test for a certificate, rating, or operating privilege. Most, if not all, training and qualification activities undertaken by a part 121 or part 135 certificate holder are for one of these purposes.

Jeppesen-Sanderson commented that discussion and provisions for simulation not qualified for the landing maneuver should be deleted.

Based on experience with simulation, the FAA believes that the flight review can be successfully accomplished in an appropriate flight simulator or flight training device. Previously, landing maneuvers, which likely would be required during a flight review, could be conducted only in a flight simulator qualified as Level B or higher. Section 61.57(g)(3), however, provides a means for the review to be accomplished in a Level A flight simulator or in a flight training device.

One commenter said, in essence, that he believed the flight review should be an evaluation of maneuvers and procedures required for the issuance of the certificate applied for, and that not all maneuvers and procedures can be evaluated in a simulator.

The FAA agrees that not all maneuvers and procedures can be evaluated in a flight simulator at the present time. Turns about a point, chandelles, lazy eights, among others, currently cannot be simulated. However, § 61.56 does not require any specific maneuvers and procedures. An airman may complete a flight review in a simulator only if the review is undertaken after completion of an approved course. The FAA believes that the potential benefits of a structured review, subject to FAA approval, consisting of various subjects and a selection of various, but unspecified, maneuvers and procedures outweigh the fact that flight simulators cannot, at this time, replicate all maneuvers and procedures required of all certificate levels.

For the reasons discussed, this section is adopted as proposed.

§ 61.57 Recent Flight Experience: Pilot in Command

In addition to a change in the title of this section to indicate that it contains PIC currency requirements, the NPRM proposed to revise paragraphs (c) and (d) to read as follows:

“(c) General experience.

(1) Except as otherwise provided in this paragraph, no person may act as pilot in command of an aircraft carrying passengers, or of an aircraft certificated for more than one required pilot flight crewmember, unless that person meets the following requirements—

(i) Within the preceding 90 calendar days, that person must have made three takeoffs and three landings as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type of aircraft.

(ii) If the aircraft operated under paragraph (c)(1)(i) of this section is a tailwheel airplane, that person must have made to a full stop the landings required by that paragraph in a tailwheel airplane.

(2) For the purpose of meeting the requirements of this section, a person may act as pilot in command of a flight under day visual flight rules or day instrument flight rules if no persons or property are carried other than as necessary for compliance with this part.

(3) Paragraph (c) does not apply to operations conducted under part 121 or part 135 of this chapter.

(4) The takeoffs and landings required by paragraph (c)(1) of this section may be accomplished in a flight simulator or flight training device subject to the following—

landings to a full stop, at night, as the sole manipulator of the flight controls in the same category and class of aircraft.

(2) Paragraph (d)(1) of this section does not apply to operations conducted under part 121 or part 135 of this chapter.

(3) The takeoffs and landings required by paragraph (d)(1) of this section may be accomplished in a flight training device or flight simulator that is—

(i) Qualified and approved by the Administrator for takeoffs and landings, if the visual system is adjusted to represent the time of day described in paragraph (d)(1) of this section; and

(ii) Used in accordance with an approved course conducted by a training center certificated under part 142 of this chapter.”

FSI suggested that paragraphs (c) and (d) of this section should be changed to “be consistent with § 121.439.”

The FAA must presume that the recommendation is to change paragraph (c), as paragraph (d) pertains to night recency of experience, and there is no night recency of experience requirement in § 121.439. The deletion of the night landing requirement was not proposed and is not considered in the final rule. To make paragraph (c), general experience, including day landings, consistent with § 121.439 would require operators to have check airmen, operations specifications, and require each airman to have specific previous experience in the airplane type (with no provision for aircraft not requiring a type rating) in operating parts other than part 121 and part 135. Such dramatic changes to part 91, or other parts of 14 CFR, would simply not be economically justified. This rulemaking is intended to encourage and accommodate the use of simulation for more extant training, testing, and checking tasks, but not to change the tasks required for any particular certificate, rating, or privilege. Therefore, paragraphs (c) and (d) are adopted as proposed.

Also, the NPRM proposed to amend paragraph (e) to permit pilots to meet instrument currency requirements in an approved flight simulator or flight training device.

NWA recommended that proposed paragraph (e) include an exception stating that the requirements of § 61.57 do not apply to operations conducted under part 121 and part 135, similar to the construction of paragraphs (c) and (d) of § 61.57.

During the comment period and final drafting stage for this final rule, the FAA was separately considering a petition for exemption or other regulatory relief from the requirements of paragraph (e) for members of ATA. On November 11, 1994 the FAA published a final rule (59 FR 56385) that revised § 61.57(f) to provide that PICs employed by a part 121 or part 135 operator are excepted from compliance with the recency of experience requirements of § 61.57, only if they are qualified under §§ 121.437 or 135.243 and meet the recent experience requirements under §§ 121.439 or 135.247. Therefore, this exception in paragraph (f) will provide the relief suggested by the commenter.

NATA commented that “approved course,” as used in this section, should include “those courses approved under part 141 and part 61.” Several other commenters asked what is meant by “approved course,” and whether such a course is limited to takeoffs and landings.

The reference is to courses approved for training centers for establishing or maintaining currency in those tasks specified in this section. The content of such courses would not have to be restricted to takeoffs and landings. The courses might include, for example, different abnormal and emergency situations for takeoffs and landings, such as power loss, runway contamination, gusts and shear, factors causing visual illusion, physiological factors affecting night takeoffs and landings, and others. There is no such course approved under part 141 and, as discussed earlier under § 61.56, adding new courses to part 141 was not proposed and is not considered in this rulemaking.

A few air carriers commented that they disagree with the proposed change of verbiage which requires an instrument competency check to be given by “a person authorized by the Administrator” instead of by “an FAA inspector, a member of an armed force of the United States authorized to conduct flight tests, an approved FAA-approved check pilot, or a certified instrument flight instructor.”

The proposed revision is needed to permit other persons to give the instrument competency check. For example, the new wording will include evaluators for part 142 training centers, designated examiners, pilot proficiency examiners, simulator-only instructors who do not hold a medical certificate, as well as all those persons named in the previous rule.

For the reasons discussed, this section is adopted as changed.

§ 61.58 Pilot-in-Command Proficiency Check: Operation of Aircraft Requiring More Than One Required Pilot

The FAA proposed to revise this section to permit airmen, under certain conditions, to accomplish required PIC proficiency checks entirely in a qualified and approved flight simulator.

Proposed paragraph (a) provided that:

(a) Except as otherwise provided in this section, to serve as pilot in command of an aircraft that is type certificated for more than one required pilot crewmember, a person must—

(1) Within the preceding 12 calendar months, complete a pilot-in-command check in an aircraft that is type certificated for more than one required pilot crewmember; and

(2) Within the preceding 24 calendar months, complete a pilot-in-command check in the particular type of aircraft in which that person will serve as pilot in command.

NAFI, apparently commenting on § 61.58(a), commented that this section should be revised to close a loophole that allows certain large or turbojet aircraft, such as the DC-3 and some Cessna C-500 series aircraft, to be operated by a single pilot. It points out that, under the current and proposed sections, pilots of those aircraft may not be required to undertake the pilot proficiency checks.

While NAFI's comment may have merit, changing the applicability of § 61.58 is not the purpose of this rulemaking, and the FAA did not propose to change the tasks required for proficiency checks. As stated earlier, the purpose of this rulemaking is to encourage and accommodate the use of simulation for more training, testing, and checking tasks, but not to change the tasks required for any particular certificate, rating, or privilege.

Proposed § 61.58(e)(1) stated the following:

“Except as provided in paragraph (f) of this section, a check or a test described in paragraphs (d)(1) through (d)(4) of this section may be accomplished in a flight simulator qualified and approved under part 142 of this chapter subject to the following:

(1) Except as allowed in paragraphs (e)(2) and (e)(3) of this section, if an otherwise qualified and approved flight simulator used for a PIC proficiency check is not qualified and approved for a specific required maneuver—

(i) The training center shall annotate, in the applicant's training record, the maneuver or maneuvers omitted; and

(ii) Prior to acting as PIC, the pilot shall demonstrate proficiency in each omitted maneuver in an aircraft or flight simulator qualified and approved for each omitted maneuver.”

is forwarded to include this alternative.

Paragraphs 61.58(e)(2) and (e)(3) contain proposals pertaining to circling approaches and landings in certain simulators. For example, under the proposed rule, a proficiency check, which requires a circle-to-land maneuver, would have to be accomplished in a flight simulator equipped with a visual system that permits accomplishment of the circling approach task. If the flight simulator used is not qualified for circling approaches and the applicant does not demonstrate circling approaches at the training center, proposed § 61.58(e)(2) would require that the training center annotate the applicant's records with the statement, "Proficiency in circling approaches not demonstrated." In addition, proposed § 61.58(e)(2) would restrict the applicant from performing circling approaches as PIC, during conditions less than basic VFR weather minimums. This proposed restriction would remain until proficiency in circling approaches in either an aircraft or a flight simulator qualified for circling approaches is demonstrated to a person authorized by the Administrator to conduct the required check.

FSI commented that helicopter pilots should not be required to perform circling approaches to satisfy the requirement of this section because, in essence, a helicopter can land to a downwind hover, then make a hovering turn to make a landing to touchdown into the wind.

While this comment may have merit, the FAA did not propose to change the circling approach requirement. This rule considers what tasks may be accomplished by use of simulation, either now or in the future, but does not attempt to determine what tasks should be required for any particular certificate, rating, or privilege. Those tasks are being evaluated in a separate rulemaking project (phase II of the part 61, 141, and 143 review).

Airbus commented that § 61.58(e)(3) is not appropriate for training centers providing training for part 121 and part 135 certificate holders. It continues that an air carrier's operations specifications prohibit circling approaches unless the pilot is qualified to perform circling approaches, and that the approved training for a particular air carrier does not require training in circling approaches unless the employing air carrier is approved to conduct circling approaches. Airbus suggests that this paragraph be written to exclude applicants who are currently employed by a part 121 or part 135 certificate holder.

The FAA agrees in part with the commenter. The comment appears to pertain to proposed § 61.157 however. Therefore, the commenter's suggestion will be addressed in the preamble discussion pertaining to proposed § 61.157.

Section 61.58(f) proposed that, in order to accomplish the recurrent check entirely in a flight simulator, the pilot must have performed the 12-and-24-month proficiency checks in an aircraft, as described in § 61.58(a)(1) and (2).

FSI and Simuflite Training International (SFI) commented that the words "if an applicant for a check required by this section has not satisfactorily completed a PIC check within the period required by paragraph (a)(1) or (a)(2) . . ." that appear in proposed § 61.58(e) are essentially the same as the provisions contained in proposed paragraph (f) which reads as follows:

(f) If a pilot has not completed a pilot-in-command proficiency check within the period required by paragraph (a)(1) or (a)(2) of this section, that pilot must complete the required pilot-in-command proficiency check in an aircraft.

These commenters point out that both paragraphs would therefore preclude reestablishment of PIC proficiency by use of a simulator, which may be more restrictive than current exemptions.

The FAA agrees. It was not intended to propose that § 61.58(e) be made more restrictive than recent practice has allowed. Accordingly, § 61.58(e) has been reworded in the final rule. Paragraph (e) now reads as follows:

(e) A check or a test described in paragraphs (d)(1) through (d)(4) of this section may be accomplished in a flight simulator qualified and approved under part 142 of this chapter subject to the following:

approaches—

(i) The applicant's record shall be annotated with the statement, "Proficiency in circling approaches not demonstrated;" and

(ii) The applicant may not perform circling approaches as pilot in command when weather conditions are less than the basic VFR conditions described in § 91.155 of this chapter, until proficiency in circling approaches has been successfully demonstrated in an approved simulator or aircraft to a person authorized by the Administrator to conduct the check required by this section.

(3) If the flight simulator used pursuant to this paragraph is not qualified and approved for landings—

(i) The applicant must hold a type rating in the airplane represented by the simulator; and

(ii) Have completed, within the preceding 90 days, at least three takeoffs and three landings (one to a full stop) as the sole manipulator of the flight controls in the type airplane for which the pilot-in-command proficiency check is sought.

In an apparent reference to proposed paragraph (g), which required a pilot's first PIC proficiency check to be accomplished in an aircraft, FSI commented that it believes that part 142 will have the same supervision and scrutiny required of training programs currently conducted under part 121, and that even the first proficiency check should be allowed in a flight simulator, as currently permitted under § 121.439 (sic). (Apparently the commenter was referring to § 121.441.)

The FAA has considered the comment in the overall context of increasing the use of simulation in lieu of checking in an aircraft. The inclusion of a certificate limitation, as described in the discussion of §§ 61.64 and 61.158, requiring SOE for certain less experienced pilots, will assure that pilots first due a PIC proficiency check in a specific type aircraft will have had some aircraft experience. Accordingly, after further consideration, the FAA has concluded that proposed paragraph (g) is unnecessary and it has not been adopted.

Proposed paragraph (i) stated the following:

"(i) If a pilot takes the check required by this section in the calendar month before, or the calendar month after, the month in which it is due, the pilot is considered to have taken it when due, and future proficiency check due dates do not change."

AMR commented, "The proposed paragraph 61.58(i) leaves open the same questions that the existing language in parts 61.58(g) and 135.301(a) leave open. The proposed paragraph establishes a base month, and a 90-day window for checking." AMR continues that there are any number of good reasons why a pilot may not get the check required by this section within the specified time period, and that the proposed language does not address the case of a pilot whose currency has lapsed. It recommends that the period for checking be extended to include the period from the month before the month a check is due until 2 months after the month a check is due. It further recommends that another subparagraph be added to specify that, for those pilots who do not complete a proficiency check during the period due, a new 12-month period for proficiency check due dates will begin upon completion of the proficiency check.

The FAA does not agree that extending the acceptable time period for completion of a proficiency check for 2 months beyond the due date, and allowing a total window of 4 months for an annual proficiency check, is warranted. Safety dictates that a pilot's proficiency be checked regularly and with some degree of frequency. The FAA has found it acceptable to conduct annual proficiency checks. The scenario described by the commenter would allow annual proficiency checks to become 14-month proficiency checks.

The FAA does not agree that a new provision is necessary for pilots whose currency has lapsed. Paragraph (a) speaks to such a situation in that the pilot must be able to look back over the current

The FAA proposed to revise this section title to make it clear that this section is applicable only to applicants who are pilot crewmember employees of a part 121 or part 135 certificate holder. This section would continue to set forth the requirements for adding additional aircraft ratings to pilot certificates other than ATP certificates.

The NPRM proposed a new § 61.64, titled “Additional aircraft ratings for other than airline transport pilot certificates (for other than parts 121 and 135 use).” This proposed section contains provisions for adding ratings for airmen other than pilots applying for an additional type rating through successful completion of a part 121 or part 135 approved training program. The detailed testing guidelines are contained in FAA *Practical Test Standards*. More discussion on PTS follows in subsequent paragraphs, and under the analysis of comments about proposed § 61.158 and appendix A of part 61).

Several commenters, including TWA, said that the phrase, “(for parts 121 and 135 use only)” is confusing, and that the FAA should “enforce one, and only one, set of standards for an ATP certificate.” Crew Systems said that the proposals appear to create two types of pilot certificates, one for part 121 and part 135 operations and one for all other operations.

The FAA has but one set of standards for the ATP certificate, or for any other certificate. Section 61.63 and § 61.64 are written differently to articulate the different procedures for gaining added ratings, including an added rating to the ATP certificate. Neither section addresses standards for the application of the ATP certificate. Part 61 has for years listed, under several paragraphs entitled “Flight proficiency”, broad areas of operations in which each applicant must demonstrate competence to be awarded any airman’s certificate except for the ATP certificate. For the last several years, the specific tasks appropriate for an applicant for any certificate or rating, the conditions under which the tasks are to be performed, and the standards for each task have been published in PTS.

Additionally, the FAA points out that there are now and have been for many years at least two different ways to gain an ATP certificate, or ratings to that certificate, or both. The certificate and ratings may be earned pursuant to the successful completion of an air carrier training program or by meeting the requirements of § 61.63 or § 61.157 outside an air carrier training program. Sections 61.63 and 61.64 recognize the different ways to gain added ratings, and address the use of simulation for each of those ways.

AIA, Boeing, and AMR commented about this section (and § 61.64) in general. They stated that these sections are redundant, and that the requirements for a type rating or an ATP should be the same regardless of the employment status of the airman concerned.

NATA commented that there was insufficient basis for the formation of what amounts to two types of ATP certificates, and that the certification standards for additional ratings should be the same regardless of employment. These comments were similar to several others.

To clear some confusion apparently held by the commenters referenced in the previous paragraph, the FAA points out that § 61.63 (and new § 61.64) set forth the proposed requirements that would have to be met to add all additional ratings to airman certificates other than the ATP certificate, but not the requirements for the ATP certificate nor added ratings to that certificate.

As stated earlier in the discussion of this section, the FAA agrees that there is only one standard for any added rating. The commenters have observed that there have been two different sets of certification requirements (but not standards) for an added rating to the ATP certificate. One requirement is the PTS, which requires all applicants who are not applying by virtue of having successfully completed an employing air carrier training program to complete all listed tasks. Another requirement, appendix A of part 61, allows waiver of training, testing, and checking of tasks that are excluded by an air

certificate holder. The persons mentioned by the commenter have always been required to complete all the requirements now enunciated in § 61.64; the exclusion from the requirement to train and test in certain tasks (for example, the circling approach maneuver) never applied to a pilot not employed by a certificate holder subject to the operating rules of part 121. Therefore, the requirements of § 61.64 are not additional requirements for the persons mentioned by the commenter, and do not impose an additional economic burden.

In response to the comment about the requirements to be met by FAA inspectors to gain an added rating, the FAA is clear that the requirements for an individual airman apply to an FAA inspector.

For the reasons described, this section is adopted as proposed.

§ 61.64 Additional Aircraft Ratings for Other Than Airline Transport Pilot Certificates (For Other Than Parts 121 and 135 Use)

The FAA proposed in paragraphs (b)(1) and (c)(1) of this section that an applicant who holds a pilot certificate and applies to add a category or class rating must present a record of training certified by an authorized flight instructor showing that the applicant has accomplished certain training. Paragraph (d)(1) proposed that an applicant who holds a pilot certificate and applies to add a type rating must present a record of training certified by an authorized ground or flight instructor showing that the applicant has accomplished certain training.

In addition to the comments on this section already addressed in the discussion relating to proposed § 61.63, FSI commented that the wording of proposed §§ 61.64(b)(1), (c)(1), and (d)(1) be changed to delete the words "flight" and "ground" wherever they appear before the word "instructor." In essence, it says that, as proposed, this section would not allow authorized instructors, who do not hold flight instructor certificates, to certify flight training accomplished in simulation. It states that this practice already is permitted under existing exemptions.

The FAA agrees. Accordingly, the final rule incorporates the revisions suggested by FSI.

Paragraph (e) proposed the following:

"(e) The tasks required by paragraphs (b), (c), and (d) of this section shall be performed in—

- (1) An airplane of the same type, for which the type rating is sought; or
- (2) Subject to the limitations of paragraph (e)(3) of this section, a flight simulator or a flight training device that represents the airplane type for which the type rating is sought.
- (3) The flight simulator or flight training device use permitted by paragraph (e)(2) of this section shall be conducted in accordance with an approved course at a training center certificated under part 142 of this chapter; or
- (4) In another manner approved by the Administrator."

STI asked, "What could be a possible (sic) another manner approved by the Administrator?" It asked if the intent is to allow current part 61 exemption holders to submit a program outside of a part 142 certificated training center. STI believes that to do so would allow organizations to offer additional type ratings without a part 142 certificate, and that would negate "the level playing field for all operators subject to part 142 certification."

The new rule will allow current part 61 exemption-holding simulator training centers to continue to operate only if they obtain a part 142 certificate. The phrase in question was intended to allow for approval of unforeseen circumstances for completing the tasks required to obtain a part 142 certificate without changing the rule. The FAA has determined, therefore, that proposed paragraph (e)(4) can be withdrawn and has renumbered several paragraphs accordingly.

intent while still safeguarding basic pilot and instructor skills provided by the physical operating environment.”

In another comment addressing general experience in actual aircraft flight, ALPA stated the following:

“While it is true that aircraft simulation has reached unparalleled levels of realism, and we strongly support increased use of advanced simulation, there are other factors which are important, especially for low-time pilots.

One factor is familiarity with and management of the air traffic control (ATC) environment. Unless every simulator flight is conducted as line oriented flight training (LOFT), a great deal of the required ATC interaction is missed. Under ideal circumstances, LOFT will include realistic interaction with ATC and other aircraft. Unfortunately, LOFT sessions are not always conducted with this degree of environmental realism. It is the operation and decision-making experience which one receives in an aircraft in an ATC environment, including interaction with other aircraft, which makes them a safer pilot. This is especially important early in a pilot’s learning experience.”

ALPA added: “For these reasons, caution should be exercised in relying too heavily on simulator training in a pilot’s early training and experience,” and “A pilot who is a candidate for an ATP has likely flown for a commercial operator for several years. . . .”

The FAA agrees with the commenters’ analysis of the importance of actual aircraft experience when an applicant will use flight simulation for a large portion of required training and testing. The FAA has had, for years, mechanisms for part 121 air carriers and for part 91 and part 125 operators to ensure the flying public that PIC’s have actual aircraft experience prior to acting as PIC for aircraft requiring a type rating. Part 121 has a requirement for a potential PIC to receive specified initial operating experience (commonly known as IOE, required by § 121.434) under the supervision of a check pilot. This operating experience requirement applies only to the ATP certificate.

Notwithstanding the recency of experience requirement of § 61.57, experienced pilots who operate under part 91 or under part 125 have no further operating experience requirement. Relatively inexperienced pilots who intend to operate under part 91 or under part 125 and who gained an airman certificate with a type rating or added a type rating to any level of airman certificate entirely by training and testing in a flight simulator have had a limitation placed on their airman certificate requiring operating experience similar to that required by § 121.434. The terms of exemptions permitting these pilots to train and test entirely in flight simulators defined the experience level thresholds and set the requirements for SOE. The SOE requirement applies to any level of airman certificate. The SOE requirement applies only to a pilot who is to act as PIC for the first time in a particular type aircraft, and may be completed under the supervision of another qualified and current PIC.

In light of its long-standing requirements for operating experience for new PIC’s of aircraft requiring a type rating and to implement the NTSB recommendations and those of other commenters, the FAA is convinced that, in the interest of safety, it is essential to continue requirements for sufficient operating experience before newly certificated or rated pilots act as PIC’s of aircraft requiring a type rating.

For the reasons discussed in the preceding paragraphs, the FAA has added new paragraphs (e)(4) through (e)(12) specifying SOE requirements for certain less experienced pilots who apply for an additional rating. These revisions are fully responsive to the NTSB’s and ALPA’s comments. They reflect current FAA practice with limitations contained in exemptions or placed directly on pilot certificates or ratings obtained through simulation.

With the exception of the revisions discussed above, § 61.64 is adopted as proposed.

§ 61.65 Instrument Rating Requirements

The FAA proposed in paragraph (c)(3) of this section, that an applicant for an instrument rating would have to have received instruction in instrument approaches using two different nonprecision approach

become obsolete in a few years. New instrument approaches have been added since the current rule was written, and other new ones are certain to be added.

For the reasons discussed, paragraphs (c)(3) and (g)(3)(i) are adopted as proposed.

Section 61.65(e)(2)(ii) proposed that the 20 hours of instrument instruction by an authorized instructor in a flight simulator or flight training device, currently allowed under part 61, be increased to 30 hours of instruction in a flight simulator or flight training device if the instruction is accomplished in an approved course conducted by a training center certificated under part 142.

Paragraph (h)(1) of the proposed revision to this section would permit the total pilot aeronautical experience requirement for the instrument rating to be reduced from 125 hours of pilot flight time as currently required by § 61.65(e)(1) to 95 hours of pilot flight time, which may include 35 hours of simulated or actual instrument flight time if the entire instrument curriculum is accomplished under an approved part 142 course.

Andrews University asked why the increase in credit, and why part 141 pilot schools could not also have an increase to 30 hours.

AMR Combs (AMR), an affiliate of American Airlines, and NATA commented that the proposals for certain reductions in aeronautical experience or instructional hours for the instrument rating conducted at a part 142 training center place part 141 pilot schools at a competitive disadvantage. They recommended that the FAA grant similar authority to part 141 schools that have approved flight simulators or flight training devices.

Jeppesen-Sanderson commented that if a reduction of required hours from 125 hours of pilot flying time to 95 hours is valid for part 142 then it is valid for part 141.

Another commenter said that the proposed reduction of pilot flying time to 95 hours under proposed paragraph (h)(i) does not do justice to the level of exposure a person should have to operate safely in the IFR environment. The commenter continues that he can attest to the difficulties encountered when experience requirements were reduced from 200 to 125 hours. The commenter believes that the level of skill required of the single-pilot IFR operation is the most demanding in aviation. The commenter states that the rigid oversight proposed for part 142 is commendable, but inadequate to compensate for the lack of experience.

The FAA believes that the proposed changes discussed above are justified based on innovative training concepts that will be a feature of part 142 training centers. The reasons for the creation of a new training entity and assigning specific authorities and privileges to it are discussed under a previous section in this document entitled "Discussion of the Amendments and the New Rule."

While part 141 allows the use of ground trainers, except for part 121 and part 135 certificate holders training their own aircrews, under this final rule, all flight simulator training, testing, and checking for which an airman is to receive credit to satisfy any requirement of 14 CFR must be accomplished in part 142 training centers. These training centers will be subject to more stringent training program requirements than part 141 pilot schools. Part 142 training centers will be substantially more sophisticated than schools certificated under part 141 by virtue of the use of the most advanced levels of flight simulation. They will have considerably more detailed and structured training programs, their instructors will be subject to more demanding qualifications, and they will have more interaction with potential air carrier clients than part 141 pilot schools have.

Experience has shown that there is a greater efficacy in more structured training using high fidelity simulation than in traditional aircraft-only or aircraft and complementary flight training device training such as provided by a part 141 pilot school. At present, under § 141.41, a part 141 pilot school may use a flight simulator only to the extent that a flight training device may be used. The requirements for the part 142 certificate are discussed in more detail in the applicable section-by-section discussion.

of flight training device. This section applies only to ILS approaches, since Category II applies only to ILS approaches by definition.

Airbus Service Company, Inc., (Airbus) commented that references to ILS in this section should be deleted, since other means of conducting Category II operations will soon be available. It also recommended that references to alert height be deleted, because it is not appropriate for Category II operations.

The FAA agrees that other means of conducting precision instrument approaches may soon be available. Those approach procedures may not include different categories, as ILS procedures do. It would not be appropriate to determine category requirements for other instrument approach procedures that do not yet exist. Therefore, the references to ILS contained in the proposed rule (this section and § 61.68) are adopted in this final rule.

The FAA agrees that alert height is a term not normally applicable to Category II operations, and the term is deleted in the final rule.

The FAA stated in paragraph (d)(3) of this proposed section that oral questioning could be conducted at any time during the flight increment of the practical test.

One commenter stated that oral questioning must never be allowed during the operation of an aircraft. He states that the demands placed on an applicant being tested are great enough without the applicant having to interrupt a train of thought to answer a question.

The FAA agrees that an applicant should not be carelessly questioned during the conduct of a practical test. Routine questions that can be effectively conducted in an interview situation while on the ground should and will be conducted on the ground to the maximum extent possible. However, the FAA believes that it is in the interest of safety to allow evaluators to conduct limited oral questioning during the practical test. The FAA needs to be able to determine that an applicant is capable of recognizing and responding to outside questions, statements, or directions. A verbal warning from air traffic control (ATC) or another crewmember, an ATC inquiry about the status of flight progress or windshear encounter, report of a windshear, traffic, or other hazard to landing are examples of outside questions or interruptions that a crewmember must be able to cope with and respond to in the interest of safety. An effective method to determine that an applicant can cope with these examples and all the requirements of a practical test is to allow the person conducting the practical test to insert realistic distractions or to make simulated instructions or warnings to an applicant during the actual conduct of practical tests.

The FAA has determined that the duration of this authorization should remain in § 61.21. Accordingly, proposed paragraph (e) is not adopted.

For the reasons discussed above, this paragraph is adopted as proposed except for the changes discussed, minor typographical corrections, and deletion of the term "alert height."

§ 61.68 Category III Pilot Authorization Requirements

This new proposed section sets forth the requirements for a pilot to conduct Category III operations. Several part 121 certificate holders commented that the section should be amended to include the authority for part 121 and part 135 certificate holders to conduct the authorization practical test pursuant to their approved training programs.

The FAA agrees that part 121 and part 135 certificate holders should be authorized to conduct the practical test pursuant to their approved training programs. A new § 61.3(j) is adopted by this final rule to permit this practice.

The FAA stated in paragraph (e)(4) of this proposed section that oral questioning could be conducted at any time during the flight increment of the practical test.

Boeing and AIA commented that paragraph (e)(4) should be amended to clarify that the oral increment and flight increment do not occur simultaneously.

industry. One task that flight simulators are being used for now, and almost certainly will be more in the future, is Category III training and testing. Thus, the provisions of this proposed section relate directly to the primary purpose of this rulemaking.

AMR commented that the “excruciatingly detailed practical test procedures in proposed paragraph 61.68(e)” are not appropriate regulatory material. It suggests that the FAA delete proposed paragraph (e) of § 61.68 in its entirety. It recommends that the proposed training and practical test procedures be included in AC 120-28C, or published in PTS. Ferrarese Associates, Inc., made essentially the same comment.

The FAA has determined that it is appropriate to set forth those mandatory requirements for experience and testing of airmen applying for Category III authorization in a regulation. An advisory circular gives non-mandatory advice only for a means, but not the only means, to accomplish certain actions. The information in this section is similar to the regulatory language concerning Category II approach authorization, contained, for many years, in § 61.67.

The FAA has determined that the duration of this authorization should remain in § 61.21. Accordingly, proposed paragraph (f) is not adopted. With this change, this section is adopted as proposed.

§ 61.109 Airplane Rating: Aeronautical Experience

The FAA proposed to allow credit for instruction received in approved flight simulators and approved flight training devices in this section. The FAA previously required 20 hours of flight instruction, and all of that instruction must have been received in an airplane.

Under this proposed section, a maximum of 2.5 hours of flight simulator or flight training device instruction from an authorized instructor is creditable toward the 20 hours of flight instruction required for a private pilot certificate, whether or not that instruction is accomplished in a training center certificated under part 142. The 2.5 hours of instruction time may be increased to 5 hours of instruction in a flight simulator or flight training device, provided the instruction is accomplished in an approved course conducted by a training center certificated under part 142.

The flight instruction received in a flight simulator or flight training device must be accomplished in a flight simulator or flight training device representing an airplane.

Previously, § 61.109 required at least 40 hours of flight instruction and solo flight time. Under this proposed section, the 40 hours of aeronautical experience may be reduced to 35 hours provided that the entire private pilot curriculum is accomplished under an approved part 142 course.

The 35 hours of aeronautical experience may be further reduced under paragraph (i) of this section if the applicant completes an approved private pilot course and if the Administrator determines that a further reduction is appropriate based on a demonstration of training program effectiveness that warrants testing such a reduction. Under this exception, a training center might propose a test training curriculum the effectiveness of which might be validated by reference to post-training data covering at least 1 year of student performance before such a reduction could be considered for other students.

Andrews University commented that it agrees with this proposed section.

The Japanese Civil Aviation Bureau commented that the reduced aeronautical experience requirements of this section and §§ 61.113, 61.129, and 61.131 may have an impact on Convention on International Civil Aviation (ICAO) agreements, in that students meeting reduced aeronautical experience requirements may not meet ICAO member states' requirements for certificates based on a U.S. certificate.

The FAA points out that the reduced aeronautical experience requirements authorized for part 142 training centers are the same as the reduced aeronautical requirements that have been authorized for part 141 pilot schools for many years. Therefore, certificates and ratings issued under part 142 would have the same ICAO member states' acceptance as certificates and ratings issued under part 141. The

that might adequately train for a specific certificate or rating in fewer than the current minimum number of hours. In order to gain the privilege of further reducing minimum training hours, a training center will be required to demonstrate that it can provide proper training in fewer hours. To accomplish this, it would have to propose a method of tracking graduates and collecting data to validate training program effectiveness. Data to be tracked to point to program effectiveness might include incidents, accidents, hours flown, and type of flying. A training center would have to present historical data covering at least 1 year (or other period of time approved by the Administrator) before it could be granted a reduction in the minimum hours prescribed in this section. Data covering performance over this period of time is considered necessary to properly evaluate student performance. Data covering a shorter term would not be sufficient to allow the FAA to evaluate performance during varying seasonal conditions.

ALPA also commented that 1 year of data collection is an inadequate period to collect data from which to draw conclusions used to validate the effectiveness of training students in fewer than the minimum number of hours set forth in the proposed rule. In support of this comment, it stated that accident and incident rates are difficult to quantify for even 10-year periods.

The FAA points out that accidents and incidents are just examples of pilot performance that may be tracked, and are not meant to be the only items tracked. The FAA believes that it is in the public interest, and safe, to allow a reduction if data collected and evaluated justify such a reduction. If the performance data do not clearly justify the reduction, none will be undertaken. If, after a test is undertaken, the FAA determines that the performance of the pilots in the test group is below standard, the FAA will modify the validation data collection period or any other control measure that may be indicated.

AMR commented that part 141 pilot schools would be at a disadvantage in that, unlike training centers, they would not be permitted to reduce the number of hours of aeronautical experience as proposed in this and similar sections. It recommends that pilot schools be allowed the same opportunity if the pilot school has approved flight simulators or flight training devices.

The minimum number of hours of aeronautical experience proposed in the NPRM for purposes of part 142 is the same aeronautical experience required under part 141 for several years. The potential for an even further reduction is extended to part 142 training centers only, because the FAA is convinced that further reduction would be possible at this time only under the more sophisticated training environment required of these schools.

AMR also commented that in the training environment it is relatively normal for a student to have more than one instructor during a course of instruction. Proposed § 61.109(a), it points out, speaks of a singular instructor, as does the existing regulation. To better reflect the training center environment, and to avoid the implication that a trainee must have one and only one instructor, it recommends that the proposed language be changed to say "flight instruction from an authorized instructor or instructors."

The FAA agrees that students are likely to have more than one instructor, and it does not intend to prohibit this practice. The term "authorized instructor" as used throughout this final rule is intended to mean that instruction may be received from one instructor or from more than one instructor. The interpretive rules in 14 CFR part 1 state that words importing the singular include the plural, and that words importing the plural include the singular.

Therefore, for the reasons stated, this section is adopted as proposed.

§ 61.113 Rotorcraft Rating: Aeronautical Experience

Under current § 61.113, an applicant for a private pilot certificate with a rotorcraft category rating must have at least 40 hours of flight instruction and solo flight time in aircraft. Instruction in flight simulators or flight training devices is not authorized. The FAA proposed in paragraph (a)(1) of this section that the 40 hours of flight instruction and solo flight time must include at least 20 hours of flight instruction from an authorized flight instructor.

device instruction could be credited toward the 250 hours of total flight time if the instruction is accomplished in an approved course conducted by a training center certificated under part 142. To be credited toward the total flight time requirement for a commercial pilot certificate, flight simulator or flight training device instruction received would have to be accomplished in a flight simulator or flight training device representing an airplane.

AMR, in a comment identical to several others, commented that the terms of proposed § 61.129(b)(1)(ii) should be made applicable to training under part 121, part 135, part 141, or SFAR 58.

For reasons discussed in the analysis of comments to § 61.65, additional flight time may be performed in a simulator and credited toward total flight time, only if the simulated flight time is accomplished in accordance with a training program approved under part 142, part 121, or part 135.

NATA commented that this section should be left unchanged.

Jeppesen-Sanderson commented that an approved part 142 commercial course would allow all training, including cross-country experience, to be conducted in a flight simulator or flight training device, and that “. . . it is impractical to conduct the entire commercial training program in a simulator or flight training device.”

In fact, the proposed rule would not affect the current requirement pertaining to cross country flights, and it proposed that a maximum of 100 hours of the total of 190 hours of aeronautical experience may be accomplished in a flight simulator under part 142. The justification for permitting up to 100 hours of training to be accomplished in a flight simulator may be found in the discussion of comments to § 61.65 and in the section of this document entitled “Discussion of the Amendments and the New Rule.”

The FAA has decided to omit the words “Approved commercial pilot training program conducted under part 142” from the title of paragraph (c). Paragraphs within a section do not normally have titles. With this change, this section is adopted as proposed.

§ 61.131 Rotorcraft Rating: Aeronautical Experience

Under current § 61.131, an applicant for a commercial pilot certificate with a rotorcraft category rating must have at least 150 hours of flight time, including at least 100 hours in powered aircraft, 50 hours of which must have been in a helicopter.

Under the proposed revision to this section, the applicant may obtain 35 hours of credit toward total flight time requirement in a flight simulator or flight training device, or a credit of up to 50 hours of the total required flight time in a flight simulator or flight training device if the flight simulator time or flight training device time is obtained from a training center certificated part 142. Previously, there was no provision for crediting flight simulation time toward this rating. Under the proposed rule, to be credited toward the total 150-hour flight time requirement, flight simulator or flight training device instruction received would have to be accomplished in a flight simulator or flight training device representing a rotorcraft.

A provision to allow a further reduction of the 150-hour flight time requirement, based on demonstrated ability to accomplish training requirements in less time, was also proposed.

AMR commented that the ratio of dual time to solo time is out of balance, and that each of those categories of aeronautical experience should be adjusted.

The ratio of dual to solo aeronautical experience is not appropriate to consider in this rule, which is aimed at increased use of simulation. The NPRM did not propose any changes to either solo or dual flight time requirements.

With minor typographical changes, this section is adopted as proposed.

instrument time previously allowed could have been increased to 50 hours if accomplished in an approved course conducted by a training center certificated under part 142.

ALPA and Andrews University commented that it is inconsistent to propose to allow an increase of only 50 hours of simulated flight time for an applicant for an ATP certificate since proposed § 61.129 would permit a student to credit up to 100 hours of simulated flight experience toward the total requirement for the commercial certificate.

The FAA believes that the proposal is not inconsistent. The flying hour credit allowed by proposed § 61.129 was for **total** flight hours; the credit in this proposed section is for **simulated instrument experience**. However, in response to comments, paragraph (a)(3), as adopted, allows not more than 100 hours of **total** simulated pilot experience to be credited toward the total requirement for this certificate. This recognizes that those 100 hours could already be a part of time accumulated in obtaining a commercial pilot certificate.

NATA and ATA commented, in a comment similar to that of several of its member organizations, that the proposal permitting increased amounts of simulated flight time to be credited as aeronautical experience should be extended to part 121 and part 135 certificate holders, and to holders of AQP authorization.

It was not the purpose of this rulemaking to extend increased training credits to holders of certificates issued under part 121 or part 135. However, any curriculum can be organized for presentation under principles described by AQP, presented to the FAA for approval and, upon approval, presented to aircrew employees of the authorization holder or, if the authorization holder also holds a part 142 certificate, to any other person.

Boeing commented that this proposed section is not applicable to foreign pilots and military pilots.

The provisions of this proposed section, however, do apply to military pilots and foreign pilots.

This proposed section is adopted with the changes described above.

§ 61.157 Airplane Rating: Aeronautical Skill (For Parts 121 and 135 Use Only)

The FAA proposed to revise this section title to make it clear that it is applicable only to applicants for an ATP certificate (with an airplane rating) who are pilot crewmember employees of a part 121 or part 135 certificate holder applying pursuant to that employer's approved training program. The FAA proposed a new § 61.158 that applies to other applicants, as discussed under the next heading.

Numerous comments were received concerning this section. In addition to the persons commenting on proposed § 61.63, which concerns a similar subject, American Airlines (American), Delta, and FSI commented on this section. The comments were substantially the same as the comments regarding proposed § 61.63.

See the response to comments concerning proposed § 61.63 for a discussion of the reasons for reserving § 61.63 for part 121 and part 135 use. The same rationale applies to this proposed section.

The FAA will continue the practice of allowing waiver of certain maneuvers, on an individual basis, as currently provided in appendix A of part 61 and the PTS, for those persons who have successfully completed an employing air carrier's approved training program for the type airplane involved within the preceding 6 calendar months. The waiver authority will apply only to applicants whose employer does not have the procedure authorized in the operations specifications, for example, circling approaches authorized by operations specifications. The waiver authority will not apply to all persons who are employed by an air carrier simply because of that person's employment.

The FAA restructured proposed paragraph (a) to better conform to proper outline and grammatical construction. The subject matter of proposed paragraph (a)(2) is better placed in existing paragraph (c).

The FAA proposed in this new section general skill requirements for each ATP certificate applicant with a single-engine or multiengine class rating or type rating if the applicant is not a participant in an air carrier training program as an aircrew employee on an air carrier. This proposed section was intended to clarify which certification procedures apply to aircrew employee applicants of air carrier approved training programs and which apply to other applicants.

Paragraph (c) proposed the following:

“(c) The tasks required by paragraphs (a) and (b) of (§ 61.158) shall be performed in—

(1) An airplane of the same class, and, if applicable, an airplane of the same type, for which the class rating or type rating is sought; or

(2) Subject to the limitations of paragraph (c)(3) of this section, a flight simulator or a flight training device that represents the airplane type for which the type rating is sought, or set of airplanes if the airplane for which the class rating is sought does not require a type rating.

(3) The flight simulator or flight training device use permitted by paragraph (c)(2) of this section shall be conducted in accordance with an approved course at a training center certificated under part 142 of this chapter; or

(4) In another manner approved by the Administrator.”

STI asked, in essence, whether paragraph (c)(4) is intended to allow current part 61 simulator exemption holders to submit a training program for FAA approval without first obtaining certification under part 142.

This is the same question that STI asked concerning proposed § 61.64. Proposed paragraph (c)(4) is withdrawn for the same reasons stated in the response to the comment regarding proposed § 61.64, and subsequent subparagraphs have been added to include the requirements for SOE for certain pilots who train and test for added ratings predominately or entirely by flight simulation.

Several other commenters stated that the FAA appears to be proposing two different standards for the ATP certificate or added ratings to that certificate, one standard applicable to applicants who will conduct air carrier operations and a second standard for applicants who will conduct other than air carrier operations. See § 61.64 for the FAA response to comments made by the NTSB and ALPA that applies also to this section.

An editorial change was made to paragraph (a)(1) of this section to make the titles of the areas of operation exactly match the table of contents for those areas of operation in PTS “FAA-S-8081-5.” Editorial changes were made to paragraph (2) to make it clear that that paragraph applies only to additional airplane ratings. Additionally, although no comments were received about these proposals, the FAA has withdrawn proposed paragraph (2)(iii) and (iv) of this section given that they cover issues not germane to the objectives of this final rule.

A few part 121 certificate holders asked if proposed § 61.158 would apply if a type rating is sought from a trainer other than one’s own employer.

As proposed, this section would apply to all applicants, who are not aircrew employees of a certificate holder, being trained in accordance with the requirements of subpart N of part 121 or subpart H of part 135, as applicable.

Andrews University asked what minimum level of flight simulator or flight training device would be required by proposed paragraph (c)(2) to conduct a practical test.

As discussed elsewhere throughout the proposal, the simulation medium, in addition to the requirements set forth under proposed paragraph (c)(2), must be qualified and approved for each maneuver, procedure,

Under current § 61.161(b), an applicant for an ATP certificate with a rotorcraft category and helicopter class rating must have had at least 1,200 hours of flight time as a pilot, including 75 hours of instrument time, 25 hours of which may have been simulated instrument time in a flight simulator or flight training device. Proposed § 61.161 would allow the 25 hours of simulated instrument flight time to be increased to 50 hours if accomplished in an approved course at a training center certificated under part 142. To be credited toward the total flight time requirement, flight simulator or flight training device instruction would have to be accomplished in a flight simulator or flight training device representing a rotorcraft.

AMR commented that the 25 hours of simulated instrument flight time should be increased to 50 hours if accomplished under part 121, part 135, or part 141 if accomplished pursuant to an AQP authorization.

The FAA does not agree that it is appropriate to increase simulated flight time as recommended by this commenter. See the section-by-section discussion under § 61.65 and the section of this preamble entitled "Discussion of the Amendments and the New Rule" for the rationale behind FAA's position on this issue.

For the reasons discussed above, this section is adopted as proposed.

§ 61.163 Rotorcraft Rating: Aeronautical Skill

The FAA proposed to revise this section to allow an airman to complete the practical test for a helicopter rating in a flight simulator or flight training device if the practical test is taken as a part of a curriculum at a training center certificated under part 142.

FSI asked if it is an oversight that this section does not contain some of the same proposed paragraphs that are contained in proposed § 61.158, which is the parallel section for airplane ratings.

It is not an oversight that this section does not exactly parallel § 61.158. The proposals that FSI questions contain provisions that would require an applicant to present a record of having received ground training and flight training on specified subjects, and to have been shown competent in specified areas of aeronautical knowledge.

Proposed § 61.158(a)(2)(iii) and (iv), which are the two paragraphs the commenter suggested that the FAA parallel in this section, have been withdrawn from § 61.158 in this final rule as issues not germane to the objectives of this rulemaking. The FAA did not propose similar provisions in proposed § 61.163. Therefore, it is inappropriate to consider this comment at this time. The comment will be considered if such proposals are made in the future for rotorcraft ratings.

FSI also recommended that the proposed areas of operations listed in § 61.163(a) be titled and re-ordered to be consistent with the table of contents contained in "Airline Transport Pilot and Type Rating," (PTS FAA-S-8081-5).

The FAA has changed the listing of areas of operation as suggested.

In response to the comments addressed in the discussion of § 61.158 and for the reasons stated there, the FAA has placed additional paragraphs in this section concerning added ratings obtained substantially or entirely in flight simulation.

This section is adopted as amended.

§ 61.169 Instruction in Air Transportation Service

This proposed section would require that ATP's giving instruction in Category II or Category III operations be trained and tested in Category II or Category III operations, as applicable.

Paragraph (a)(3) proposed that all instruction provided by ATP certificate holders be conducted in aircraft with functioning dual controls.

for more than 8 hours in any 24-consecutive-hour period, nor for more than 36 hours in any 7 consecutive days.

Continental Airlines, FSI, and others commented that proposed paragraph (b) should specify that the instruction time limitations apply to aircraft only. These commenters specifically remarked that, with a briefing and debriefing session that each last for 2 hours, a simulator instructor's duty day may exceed 8 hours. FSI made the same comment in reference to §§ 142.49 and 142.87, and this proposed section.

Proposed paragraph (b) did not include simulation in the instructor's time limitation and simulator instruction would not have been permitted by the proposal. However, because the FAA has modified the proposal to allow simulator instruction, the FAA believes that duty time limitations should apply to both simulation and aircraft.

Further, flight instruction time limitations regarding preflight and post flight activities or briefings and debriefings have never been addressed. The FAA has determined that, in this final rule, it is appropriate to clarify that time spent performing these activities does not count toward the proposed flight instruction time limitations. Therefore, the words "excluding briefings and debriefings" have been added to paragraph (b) of this section in the final rule.

AMR commented that, by proposing time limitations, the FAA is mandating work rules, and that the FAA does not provide any justification for the arbitrary limitations imposed.

The proposed time limitations are not new; they have been contained in current § 61.169 for many years. The clarification to paragraph (b) discussed above should remove any confusion about not establishing new instructor duty times for simulation instruction.

SFI commented that this rule is archaic and attaches a privilege (instructing) to a certificate that demands neither training nor a demonstration of skill as an instructor. It continues that the rules applicable to instruction in air transportation service should be contained in part 61 and that specialized requirements for air transportation instructors should be contained in §§ 121.411 and 135.337, as appropriate.

In addition to holding an ATP certificate, persons who instruct in air transportation service in part 121 and part 135 must train, and in implementing guidance requirements as an instructor and demonstrate skill as an instructor, for the specialized application of air transportation service. The FAA is convinced that these requirements assure a level of safety for instruction equivalent to provisions of part 61, for privileges limited to air transportation service.

This section is adopted with the changes discussed above.

§ 61.187 Flight Proficiency

As proposed, this section would permit an applicant for the flight instructor certificate to receive the required instruction for a flight instructor certificate in a flight simulator or flight training device used as part of an approved course conducted by a training center certificated under part 142. Previously, there was no provision for accomplishing the required instruction in anything other than an aircraft.

An overwhelming number of comments favored expansion of simulation to authorize its use for part or all of the instruction that flight instructor applicants are required to receive. Commenters objected, however, to the apparent requirement that all instruction must be received in an approved part 142 training center course. Several commenters, responding to the NPRM, suggested that the instruction permitted by this section be permitted for air carriers, part 141 schools, and holders of AQP or other authorizations.

The FAA does not agree. This option has been considered in detail in previous discussion of comments on §§ 61.56, 61.57, and 61.155.

Jeppesen-Sanderson, and other organizations representing part 141 and part 61 pilot schools commented, also in response to the NPRM, that a flight simulator could not do all the tasks in which a flight instructor must demonstrate competence.

for this for this certificate be accomplished in a part 142 course, when it intended to propose that, as an additional option, the required instruction could be obtained in an approved flight simulator or flight training device, if that instruction is received during an approved course offered by a training center.

AOPA, in its comment to the SNPRM, expressed support for the changes proposed for this section.

One person, in response to the SNPRM, stated that he objected to a change that would allow simulation to be used to satisfy any flight time required for a flight instructor certificate. In his comment, he stated: "There . . . is no gain to be obtained . . . other than the cost reduction by the big companies."

The FAA believes that there are potentially significant cost benefits for all persons involved in aviation training, including individuals who may choose to use a training center for flight instructor training whenever it becomes available.

In addition, the FAA has determined that allowing the training and testing for a flight instructor certificate would result in additional safety benefits if accomplished in a simulator rather than in an aircraft.

After further analysis, the FAA believes that paragraphs (c)(2) and (c)(4), as they appeared in the SNPRM, are inaccurate, in that paragraph (c)(2) refers to a nonexistent flight instructor course meeting part 61, subpart G, requirements, and paragraph (c)(4) refers to a nonexistent flight instructor course under part 135. Additionally, paragraph (c)(3) is repetitive of other provisions of subpart G of part 61. Therefore, the FAA has revised these paragraphs in the final rule.

This section is adopted with the corrections discussed.

§ 61.191 Additional Flight Instructor Ratings

The FAA proposed to revise this section to permit an airman to accomplish the required practical tests for flight instructor ratings in a flight simulator or flight training device used as part of an approved course conducted by a training center certificated under part 142. Previously, there was no provision for accomplishing the practical test in anything other than an aircraft.

The comments regarding this section are essentially the same as those submitted in response to proposed § 61.187. For the reasons discussed in response to proposed § 61.187, this section is adopted as proposed.

§ 61.195 Flight Instructor Limitations

This section proposed to require flight instructors giving instruction in Category II or Category III operations to be trained and tested in Category II or Category III operations, as applicable.

One commenter agreed with the proposal, but remarked that he would like a better definition of what the Category II and Category III training would be.

While development of such a definition is not the purpose of this rulemaking, testing requirements for these areas are described in §§ 61.67 and 61.68 and training should track the requirements of the appropriate test.

This section is adopted as proposed, with an added reference to § 61.68.

§ 61.197 Renewal of Flight Instructor Certificates

The FAA proposed to amend this section to permit an applicant for renewal of a flight instructor certificate to conduct the required practical test in a flight simulator or flight training device in a course conducted by a training center certificated under part 142. Previously, there was no provision for accomplishing the practical test in anything other than an aircraft.

Over 200 comments were received concerning this proposed section as written in the NPRM, nearly all opposed the inadvertent proposals. However, a few comments were received concerning the proposal to allow an applicant to renew a flight instructor certificate by taking a practical test in flight simulation pursuant to part 142. These comments were generally favorable.

Ten comments were received concerning the revised proposals contained in the SNPRM. These commenters disagreed with the original proposals contained in the NPRM, which in fact made them comments in favor of the SNPRM. No comments were received that opposed the text as proposed in the SNPRM.

For the reasons discussed, this section is adopted as proposed in the SNPRM, except for deleting the words "in an aircraft" from proposed paragraph (d). That revision was necessary to avoid an inference that an applicant has to complete an approved course conducted by a part 142 certificate holder in order to take the practical test in an aircraft.

Appendix A to Part 61

The FAA proposed to change the title of appendix A to part 61 to read "Practical Test Requirements For Airplane Airline Transport Pilot Certificate and Associated Class and Type Ratings (For part 121 and part 135 Use Only)." This proposal was a companion change to the proposed change to § 61.157, since appendix A implements § 61.157.

Boeing, AIA, and Crew Systems had the same comment that they had concerning proposed §§ 61.63 and 61.64. Essentially, the comment was that the proposals appear to create two types of pilot certificates, one for part 121 and part 135 operations and one for all other operations.

The FAA response to this comment may be found by reference to the discussion of comments about proposed §§ 61.63 and 61.157.

Airbus commented that appendix A should be deleted, and that the provisions of proposed § 61.158 should be used instead. It adds that if appendix A cannot be deleted, it must be amended to accommodate modern aircraft.

The FAA agrees that appendix A has become somewhat obsolete. However, the deletion or updating of appendix A does not relate to the purpose of the proposed rulemaking upon which the final rule is based.

Therefore, in this final rule, appendix A is retitled, but otherwise unchanged. The deletion or updating of appendix A will be addressed as part of Phase II of the part 61 review which is referred to under the section entitled "Related Activity."

Integration of Appendix B to Part 61 Into Practical Test Standards

The FAA proposed to delete appendix B to part 61. FSI asked about the future of a document to replace appendix B.

The FAA does not plan to replace appendix B, as such. Instead, the FAA lists broad areas of aeronautical knowledge in several sections which specify requirements for various certificates and ratings. The specific tasks recommended for an airman to demonstrate competence in the broad areas of aeronautical knowledge are listed in implementing documents, such as the PTS.

Therefore, appendix B is deleted in this final rule, as proposed.

Part 91

§ 91.191 Category II and Category III Manual

The FAA proposed to change the title of this section to include Category III manuals. The text of the proposed section sets forth the requirements for Category III manuals for civil aircraft conducting reduced visibility operations. These operations are defined as Category III operations elsewhere in part

AMR, in a general comment about the proposed changes to part 91, stated that the proposals to amend part 91 appear to be totally unrelated to the thrust of the NPRM.

The FAA believes that these proposals are related to the subject of the NPRM. Simulation is and will be used as a primary training vehicle for reduced visibility approaches. The NPRM proposed to require testing for those persons who will be authorized to conduct such approaches in a new § 61.68. The proposed changes to §§ 91.191 and 91.205 provide requirements for aircraft equipment and procedures for Category III operations, which did not exist previously.

The FAA has determined that, in order to allow time for compliance, persons desiring to obtain Category III authorization should be given until August 1, 1997, to develop a Category III manual. Persons developing a Category III manual may use as general guidance appendix A, modified as applicable, to address Category III Manual, Instruments, Equipment, and Maintenance. Because there will be few part 91 operators seeking Category III authorization, the FAA does not anticipate that development of a Category III manual will impose a significant economic burden on a significant number of operators.

This section is adopted as proposed, except for a change to establish a separate effective date.

§ 91.205 Powered Civil Aircraft With Standard Category U.S. Airworthiness Certificates: Instrument and Equipment Requirements

This proposed section included requirements concerning instruments and equipment for Category III operations.

Airbus made the same comment about this section that it made about proposed § 91.191.

The FAA response is the same as that set forth under § 91.191.

This section is adopted as proposed.

Part 121

The FAA received numerous comments from major airline associations and air carriers that a part 142 certificate should not be required to continue to provide training to employees of other part 121 or part 135 certificate holders. These commenters stated that parts 121 and 135 contain sufficient requirements for instructors, evaluators (check airman), and training program approval and that the FAA does not need to separately specify those requirements in a new part to 14 CFR (part 142).

After reconsideration of the proposal in light of these comments, the FAA agrees that parts 121 and 135 contain sufficient requirements for training, testing, and checking any aircrew subject to those parts. For that reason, the following proposed revisions to these sections of part 121 have been withdrawn: §§ 121.1, 121.401, 121.403, 121.405, 121.407, 121.432a, 121.439, and 121.441. Upon evaluation of comments received, the FAA has concluded that the proposed subparts of part 142 that were applicable to air carriers also were not needed and should be withdrawn. Therefore subparts F, G, H, and I, of proposed part 142 also have been withdrawn.

In addition, the proposed revisions to part 121, appendix H and appendix I have been withdrawn. Part 121, appendix H issues are being addressed under separate rulemaking, as discussed under the section of this document above entitled "Related Activity," and have, therefore, been removed from this final rule. The discussion below entitled "Part 142" explains the rationale for withdrawing proposed appendix I and all proposed sections relating to drug testing.

The FAA has determined, however, that a part 121 or part 135 certificate holder, without obtaining a part 142 certificate, should not be allowed to provide training, testing, or checking to persons who are not aircrew employees of an air carrier certificated under the same part. Operations conducted by these individuals are not sufficiently similar to those of certificate holders to warrant such an exception.

As discussed below, the following sections, §§ 121.400, 121.402, and 121.431, are retained for this final rule.

Subpart N—Training Program

§ 121.400 Applicability and Terms Used

Upon reconsideration of the ability of air carriers to train aircrews of other air carriers, the FAA has withdrawn most of this proposed section. However, the FAA will retain the definition of “training center” as proposed but will modify it to conform to the definition used under § 142.3 as adopted.

In addition, the FAA received a suggestion to add the term “requalification training” to the companion section in part 135 (§ 135.321). That term is already in common usage and is defined along with the terms defined in this section in FAA Order 8400.10, “The Air Transportation Operations Inspector’s Handbook.” Because requalification training is and will be accomplished in whole or in part by simulation, the FAA agrees that it should be defined in §§ 135.321 and 121.400. Accordingly, a definition of requalification training is added as paragraph (b)(7) of this section. The FAA further determined that it would be preferable to place the proposed definitions of “facility” and “courseware” only in part 142. Therefore, these definitions are deleted from this section.

§ 121.402 Training Program: Special Rules

The FAA proposed in this section that a part 121 certificate holder may provide training, testing, and checking services to others by contract. To provide training, testing, and checking for another part 121 certificate holder, the certificate holder would have been required to also hold a part 142 certificate and appropriate training specifications issued under part 142.

Several commenters said that the section is entirely a description of functions under part 142 and that it duplicates language in part 142.

The FAA agrees with the commenters that the description of functions proposed in this section duplicates a description of functions covered in part 142. Therefore, the FAA has revised this section in order to eliminate the duplication and to expressly allow part 121 certificate holders to use part 142 training centers to meet all or part of its training requirements if the POI approves that training.

NATCO stated that if each instructor, check airman, and evaluator can be shown to be qualified to fulfill the responsibilities, then a prerequisite for 1 year of employment should have no bearing on that person’s effectiveness.

The FAA agrees. As mentioned in the section entitled “Related Activity” there is a separate rulemaking action underway, a final rule, to amend appendix H of part 121 accordingly.

After re-examination following analysis of comments, the FAA revised proposed § 121.402(a) to provide that a part 121 certificate holder may continue to provide training, testing, and checking to another part 121 certificate holder provided the training meets the requirements of part 121 and the POI of that receiving certificate holder approves that training.

The FAA further revised this section to indicate that the only entity, other than another part 121 certificate holder, that may provide training to a part 121 certificate holder is a training center certificated under part 142 of this chapter. This revision will ensure standardization and increase safety through the use of state-of-the-art training media that are inherent in training centers.

This section is adopted with the changes discussed.

another part 121 certificate holder.

For the reasons discussed earlier, this proposed section is deleted with the exception of the provision permitting a part 121 certificate holder to contract with a part 142 certificate holder for all or part of the training required by part 121. The section is adopted as revised.

Part 125

§ 125.285 Pilot Qualifications: Recent Experience

There were no comments concerning this proposed section. Therefore, it is adopted as proposed.

§ 125.296 Training, Testing, and Checking Conducted by Training Centers: Special Rules

The FAA proposed this new section to permit a crewmember to credit the training, testing, and checking received under part 142 toward the training, testing, and checking required by part 125.

AMR commented that training centers certificated under part 121, as well as those certificated under part 142, should be allowed to accomplish training, testing, and checking to satisfy this section.

As discussed earlier, there are no training centers certificated under part 121.

For the reasons in the general discussion of part 121 this section is adopted as proposed.

§ 125.297 Approval of Flight Simulators and Flight Training Devices

There were no comments concerning this proposed section. Therefore, this section is adopted as proposed.

Part 135

As discussed above in part 121, the FAA received numerous comments from major airline associations and air carriers that a part 142 certificate should not be required for a part 121 or part 135 certificate holder to continue to provide training to other than its own employees. These commenters stated that parts 121 and 135 contain sufficient detail regarding requirements for instructors, evaluators (check airman), and training program approval and that the FAA does not need to separately specify those requirements in a new part to 14 CFR (part 142).

In general, the comments about the several new proposals or proposed revisions to existing sections of part 135 are very similar to those made in response to similar proposals in part 121. However, there were considerably fewer comments. Nevertheless, all comments received have been carefully reviewed and thoroughly considered.

In response to comments, the FAA has decided to allow a part 135 certificate holder to train the flight crewmembers of another part 135 certificate holder without being certificated under part 142. Like part 121 certificate holders, part 135 certificate holders must obtain a part 142 certificate in order to train persons who are not aircrew employees of another part 135 certificate holder.

The FAA agrees that parts 121 and 135 contain sufficient requirements for training, testing, and checking of aircrews subject to those parts. For that reason, the proposed revisions involving the following proposed sections of part 135 have been withdrawn: §§ 135.1, 135.292, 135.293, 135.297, 135.299, 135.323, and 135.325. Upon evaluation of comments received, the FAA has concluded that the proposed subparts of part 142 that were applicable to air carriers also were not needed and should be withdrawn. Therefore subparts F, G, H, and I, of proposed part 142 also have been withdrawn.

The FAA has determined, however, that a part 121 or part 135 certificate holder, without obtaining a part 142 certificate, should not be allowed to provide training, testing, or checking to persons who are not aircrew employees of an air carrier certificated under the same part. Operations conducted by these individuals are not sufficiently similar to those of certificate holders to warrant such an exception.

Subpart G—Crewmember Testing Requirements

§ 135.291 Applicability

There were no comments about the proposed amendments to this section. However, the FAA decided to revise the section editorially slightly to more closely parallel § 121.431, which concerns the same subject. This section is adopted as revised.

Subpart H—Training

§ 135.321 Applicability and Terms Used

The FAA proposed to amend this section to make the requirements of subpart H of part 135 applicable to a training center if the training center provides training, testing, or checking by contract or other arrangement for a certificate holder subject to the requirements of part 135.

Several commenters remarked that this section should be left as currently worded.

The FAA has determined that certain terms should be added to better describe the training, testing, and checking required under this section.

AMR agreed with the section as proposed and suggested that it be expanded to include a definition of requalification training, which is already in common usage and which is defined, along with the terms defined in this section, in FAA Order 8400.10, “The Air Transportation Operations Inspector’s Handbook.”

Because requalification training is and will be accomplished in whole or in part by simulation, the FAA agrees that it should be addressed in this section. Accordingly, a definition of requalification training is added to paragraph (b) of this section, and the terms have been rearranged to accommodate this definition in its logical order. It should also be noted that the definition of “training center” used in this section is modified in the final as set forth in § 142.3 as adopted.

The FAA determined that it would be preferable to place the definitions of “facility” and “courseware” in part 142. Therefore, these definitions are deleted from this section.

With the revisions discussed above, the section is adopted.

§ 135.324 Training Program: Special Rules

The FAA proposed this new section to permit a part 135 certificate holder to contract with a training center certificated under part 142 to satisfy the training program requirements of part 135.

The FAA also proposed in this section to permit a part 135 certificate holder to provide training, testing, and checking to others by contract. Under the proposal, to provide training, testing, and checking for another part 135 certificate holder, the certificate holder would have been required to hold a part 142 certificate and appropriate training specifications issued under part 142.

Under this final rule, a part 135 certificate holder may continue to provide training, testing, and checking to another part 135 certificate holder. A part 142 certificate will not be needed. The proposed section was revised further to indicate that the only entity other than another part 135 certificate holder that may provide training, testing, and checking to a part 135 certificate holder is a training center certificated under part 142.

The rationale for these changes may be found by reference to the general discussion of this part and § 121.402.

No comments were received concerning this section, and it is adopted as proposed.

Broward Community College, Northwest Accelerated Ground School, and an individual made general comments that pilot schools will be placed at a disadvantage, apparently from not being able to take advantage of the capabilities of flight simulators.

The FAA's response to these comments may be found by reference to the discussion under §§ 61.65 and 61.109.

Part 142

As discussed above under parts 121 and 135, the FAA received numerous comments that a part 142 certificate should not be required for a part 121 or part 135 certificate holder to continue to provide training to other than its own employees.

After a review of comments received, the FAA has determined that part 121 and part 135 are adequate for air carrier training programs and the qualification and training of persons who present those training programs. For this reason, proposed subparts F, G, H, and I of part 142 that govern air carrier training, testing, or checking have been withdrawn.

As explained in the discussion of parts 121 and 135 above, however, the FAA has determined that a part 121 or part 135 certificate holder, without obtaining a part 142 certificate, should not be allowed to provide training, testing, or checking to persons who are not aircrew employees of an air carrier certificated under the same part.

A number of commenters also noted that the provisions regarding drug testing appear to be duplicative of requirements adopted since the publication of the NPRM, primarily in FAA's anti-drug rule, part 121, appendix I. The FAA concurs with these commenters.

Under part 121, appendix I, individuals who provide flight instruction, including simulator training, either directly or by contract for specified aviation employers, must be subject to an FAA-approved anti-drug program that includes all elements of proposed §§ 142.21, 142.23, and 142.25. Similarly, these individuals must be subject to an alcohol misuse prevention program, including alcohol testing, under regulations published in 1994, found primarily at part 121, appendix J. The FAA has determined that these regulations adequately cover those individuals performing safety-sensitive functions. Therefore, proposed §§ 142.21, 142.23, and 142.25, and as discussed above part 121, appendix I, have not been adopted.

The FAA proposed § 142.11 entitled "Training center ratings." This proposed section would have required that, in addition to a training center certificate, a training center certificate holder would have had to obtain a rating to conduct each curriculum. The FAA has determined that ratings will not be necessary, since the subject matter that would have been addressed by ratings will be covered by training specifications. Accordingly, this proposed section has not been adopted as "Training center ratings." It has been adopted as "Application for issuance or amendment."

The FAA also proposed § 142.51, entitled "Qualifications to instruct in a flight simulator or a flight training device." Because the FAA simplified and consolidated instructor eligibility requirements into § 142.47 as adopted, § 142.51 is no longer needed and has not been adopted.

Lastly, in this final rule, all references to "training center certificate holder" have been replaced with "certificate holder" because the meaning is clear within the context of part 142.

Subpart A—General

This general subpart, subpart A, contains the requirements necessary to obtain and maintain certification as a part 142 training center.

The FAA has determined that existing training programs approved for air carrier certificate holders and exemption holders should require only minor amendments to receive approval under part 142.

Accordingly, this proposed section has been revised by adding paragraphs (b)(4) and (5) to indicate that part 121 certificate holders may continue to train the flight crews of other part 121 certificate holders and that part 135 certificate holders may continue to train the flight crews of other part 135 certificate holders without obtaining a part 142 certificate.

A new paragraph (c) has been added to make it clear that training, testing, and checking in flight simulators or advanced flight training devices may only be conducted in accordance with part 142 certificate and training specifications. Exceptions are listed in paragraph (b).

This section is adopted with the changes discussed above.

§ 142.3 Definitions

This section proposed terms applicable to part 142.

AIA commented that this section would not allow airplane manufacturers the flexibility they enjoy today to revise training programs to accommodate customer-unique training needs.

The FAA believes that the definition of “specialty training” can accommodate any customer need, and was designed specifically to allow for subjects that are not generic.

ATA and several part 121 certificate holders commented that the definition of “core curriculum” is ambiguous and at odds with an air carrier POI’s authority for approval of all components of an air carrier training program.

In this final rule, the FAA has more clearly and completely defined “core curriculum.” The NPRM incorrectly referred to a “core training program.” The definitions contained in this final rule now make a clear distinction between “training program” and “core curriculum.” The FAA reiterates in this final rule that the POI is responsible for approving all training for the air carrier to which the POI is assigned.

ATA and others suggested that the term “Line Oriented Flight Training” (LOFT) be changed to “Line Operational Simulation” (LOS) to better accommodate special operational training.

The FAA agrees. The term “LOFT” has been retitled as LOS, which is defined in § 142.3. LOFT was consistent with the term in appendix H of part 121, but LOS and the new terms included in its definition are more descriptive and comprehensive, and they appear in certain AC’s, particularly AC 120-35, “Line Operational Simulations; Line Oriented Flight Training, Special Purpose Orientation Training, Line Operational Evaluation,” as amended.

Boeing and AIA commented that an evaluator need not be a pilot to certify certain training, such as ground training.

The FAA agrees with Boeing and AIA; however, such a restriction was not proposed. Under proposed § 142.55, a training center would have the flexibility to use someone without an airman’s certificate to be an evaluator.

Airbus commented that the definition of “evaluator” is “too restrictive, narrow in scope, and inconsistent with the definition of evaluator contained in SFAR 58.”

The FAA believes that the definition of “evaluator” now in this section is sufficiently broad to provide training centers with maximum flexibility for scheduling and personnel assignments. However, the proposed definition of “evaluator” has been reworded to make it clear that an evaluator may perform tests for authorizations and proficiency checks, when the evaluator is qualified under the applicable operational part, as well as for the test for certification and added ratings. While the definition of “evaluator” under part 142 is somewhat different than the definition of that term under SFAR 58, the FAA did

Boeing and AIA also requested that the term "instructor" be defined throughout proposed part 142. They stated that airplane manufacturers and other training organizations use instructors for airplane, full-flight simulator, fixed-base simulator, and airplane systems training. They believe that it would be unreasonable and unnecessary to require a certificate to perform instructor duties other than for airplane and full-flight simulator flight instruction.

The FAA did not propose to require an instructor certificate for persons who would be employed by training centers to instruct in flight simulators or flight training devices. Further, since the publication of the NPRM, and in response to a petition from the public to amend existing exemptions, the FAA has allowed persons to qualify as simulator-only instructors without holding an instructor certificate, if those persons meet certain alternative qualifications. The FAA has determined that it is appropriate to include those alternative qualifications in this final rule. (See also the discussion below under § 142.47.)

With the changes discussed, this section is adopted as proposed.

§ 142.5 Certificate and Training Specifications Required

This section proposed that no person may operate a training center without a training center certificate and training specifications, as described in part 142. Paragraph (b) further proposed that a training center certificate applicant would be issued a training center certificate and training specifications if the applicant complied with the applicable sections of part 142.

In the only comment received, AIA commented that a training center certificate should be optional if a training center is now operating under existing rules.

Prior to this amendment, there have been no training centers defined and regulated by 14 CFR. Training under previous rules is addressed in the initial discussion of part 142 above.

For the reasons discussed in the previous section, this section is adopted as proposed except for deleting a reference to § 142.77.

§ 142.7 Duration of a Certificate

This section, as proposed, provided that a training center certificate would have no expiration date, but that it could be suspended, revoked, or otherwise terminated by the Administrator. Further, under paragraph (b) of this section, a certificate holder would have to return its certificate to the Administrator if that certificate is suspended, revoked, or terminated.

Jeppesen-Sanderson commented that the provision of no expiration date for a part 142 certificate should be extended to part 141 certificates as well.

The FAA believes that questions about the administration of part 141 that are not directly connected to training by simulation are best left to the review of that part. That review is discussed in the section entitled "Related Activity." Therefore, no changes are made to this section in response to the comment.

Comments made about proposed §§ 61.2 and 142.20, which concern training centers located outside the United States, and other initiatives of the FAA, caused the FAA to change this section as it applies to training centers located outside the United States. Under this final rule, training centers located outside the United States will be issued a certificate which will expire annually. This revision is more thoroughly discussed under proposed § 142.20 (adopted as § 142.19).

This proposed section is adopted with the changes discussed.

§ 142.9 Deviations or Waivers

This section proposed deviation and waiver procedures for a training center certificate holder or an applicant for a training center certificate.

Accordingly, the section is adopted as proposed.

§ 142.11 (Withdrawn) Training Center Ratings

§ 142.13 (Adopted as § 142.11) Application for Issuance or Amendment

Paragraph (a) of this section proposed that an application for a training center certificate be made on a form and in a manner prescribed by the Administrator. Proposed paragraph (a)(3) provides timeframes for processing applications.

In response to the requirement to submit an application to the FSDO with jurisdiction over the area in which the applicant's business office is located, Boeing asked if it would no longer be acceptable for it to file an application with the FAA Aircraft Evaluation Group (AEG) for part 121 training.

The FAA has determined that review and preliminary approval of certificate applications and training programs is more within the charter of FSDO's than AEG's. Accordingly, under this final rule, an application for certification under part 142 must be filed with the FSDO having jurisdiction over the area in which the applicant's training center is located.

Paragraph (b), as proposed, would require that each certificate application provide information about, but not limited to, each management position, facility, record, and curriculum of the training center. Paragraph (b)(1) proposed:

(b) Each application for a training center certificate and training specification shall provide—

(1) A statement showing that the minimum qualification requirements for each management position are met or exceeded.

Several commenters stated that proposed paragraph (b)(1) is redundant with proposed § 142.15.

The proposals were different in that proposed paragraph (b)(1) would require a statement that would have to accompany a certificate application, while proposed § 142.15 would require qualification of management personnel and a statement about adequate numbers of those persons.

In the final rule, however, paragraph (b)(1) has been reworded slightly in the interest of brevity and clarity.

Paragraph (b)(6) proposed:

(b) Each application for a training center certificate and training specification shall provide—

* * * * *

(6) A description of the applicant's training facilities, equipment, qualifications of personnel to be used, and proposed evaluation plans;

While no comments were received concerning evaluation plans, the FAA has decided to remove the reference to "evaluation plans" in order to simplify the application process and the quality control procedures to be used by the certificate holder. Separate evaluation plans would be largely redundant with features of a quality control system.

Paragraph (b)(7) proposed the following:

(b) Each application for a training center certificate and training specification shall provide—

* * * * *

(7) A training program, including curriculum, syllabi, outlines, courseware, procedures, and documentation to support the items required in subpart B or subpart F of this part, upon request by the Administrator.

To promote clarity, the FAA has revised several terms pertaining to training programs. The revised terms are, to the extent possible, consistent with the definitions contained in the order that the commenter cites. The term syllabus, however, is retained. The FAA believes that the generic definition of that word adds clarity to the training program requirements.

Paragraph (b)(10) proposed the following:

(b) Each application for a training center certificate and training specification shall provide—

* * * * *

(10) A method of demonstrating the applicant's qualification and ability to provide training for a certificate or rating in fewer than the minimum hours prescribed in part 61 of this chapter if the applicant proposes to do so.

Boeing and AIA commented that paragraph (b)(10) should be made consistent with SFAR 58.

The FAA believes that this paragraph is consistent with SFAR 58. This paragraph refers to § 61.109 and other sections of part 61 that specify minimum hours of aeronautical experience that a part 142 certificate holder may wish to reduce further in non-traditional courses other than AQP.

United commented that "to require United, or any other (part) 121 certificate holder similarly situated, to duplicate all of its facilities, equipment, courseware and personnel in order to continue training by contract or other arrangement and then have the FAA inspect and approve the requirements . . ." is not conserving resources.

The FAA did not intend to require duplication of facilities and equipment. The buildings, classrooms, flight training equipment, and instructors may be the same that are used in pursuit of normal business in accordance with a part 121 or part 135 certificate. Some training programs offered to persons other than aircrew employees of another air carrier may be essentially the same as programs now in use. With minor modification, training programs can be presented under a part 142 certificate to persons other than air carrier certificate holder employees. ATA and several part 121 certificate holders had concerns similar to United in their comments to proposed § 142.17. The FAA addresses their comments in the discussion below under proposed § 142.17.

Paragraph (c) proposed that facilities actually be in place at the time of application, and not simply planned or expected.

Several commenters stated that this would be an unduly burdensome expenditure for equipment too far in advance of its use, especially for new entrants into the training industry.

The FAA agrees that facilities need not already be in place at the time of application. This paragraph has been reworded to require that facilities and equipment be available for inspection and evaluation prior to approval. This will preclude expenditure of FAA resources on frivolous or tentative plans that may never come to fruition due to changed business plans. It will permit the FAA to evaluate actual facilities rather than those that are merely planned and subject to later change. The FAA believes that such measures are necessary in order to conserve public resources and in order to maintain the highest standard of facilities in training centers. Paragraph (d)(2) proposed:

(d) An applicant who meets the requirements of this part and is approved by the Administrator is entitled to—

* * * * *

(2) Training specifications, issued by the Administrator to the training center certificate holder, containing—

(i) The type of training authorized, including—

(iv) For each flight simulator or flight training device, the make, model, and series of airplane or the set of airplanes being simulated and the qualification level assigned, or the make, model, and series of rotorcraft, or set of rotorcraft being simulated and the qualification level assigned;

(v) For each flight simulator and flight training device subject to qualification evaluation by the National Simulator Program Manager, the serial number assigned by the manufacturer;

(vi) The name and address of all satellite training centers, and the approved courses offered at each satellite training center;

(vii) Authorized deviations or waivers from this part; and

(viii) Any other items the Administrator may require or allow.

Several air carrier operators, commenting on proposed paragraph (d)(2), stated that training specifications would not be convenient, and that courses approved under parts 121, 135, or 142 would provide all the course specification that is required.

Based on prior experience, the FAA believes that many administrative matters not concerning course specification have been accommodated very well by the use of operations specifications for air carrier operators. This is a new concept for training entities, but experience with similar operating specifications issued to air carrier certificate holders has shown that the procedure will allow maximum administrative convenience. Especially in light of the removal of the proposed requirement for ratings for training centers, the FAA concludes that providing for training specifications is administratively wise. As stated previously in this preamble, a part 142 certificate (and attendant training specifications) will not be required for part 121 certificate holders to train other part 121 certificate holders or for part 135 certificate holders to train other part 135 certificate holders. Therefore, training specifications will be applicable to air carrier certificate holders only if those certificate holders choose to apply for a part 142 certificate.

For the reasons stated, § 142.13(d)(2) is adopted as proposed and renumbered as § 142.11(d)(2).

FSI commented that proposed paragraph (d)(2)(iii) would preclude short-notice change of aircraft and the use of customer-owned aircraft unless there is a 1-day change notification procedure. Airbus made similar comments about aircraft to be used by aircraft manufacturer training centers.

The FAA agrees that the proposal may be too restrictive on certain potential training centers, including aircraft manufacturer training centers, which might offer training in aircraft rather than in a flight simulator or flight training device. Therefore, proposed paragraph (d)(2)(iii) has been deleted. Proposed paragraphs (d)(2)(iv) through (d)(2)(viii) have been redesignated as (d)(2)(iii) through (d)(2)(vii).

Regarding proposed paragraph (d)(2)(vi), Boeing commented that the proposed requirement to list the name, address, and courses approved for each satellite training center would preclude "offload training."

The FAA does not agree that these proposed requirements would preclude the training to which Boeing referred. The proposal does not prevent training at sites other than the training center location or satellite training center location, as long as a training center or satellite training center of the certificate holder complies with the certification requirements of part 142. Therefore paragraph (d)(2)(vi) is adopted as proposed; however, since proposed paragraph (d)(2)(iii) has been deleted, proposed paragraph (d)(2)(vi) is adopted as paragraph (d)(2)(v).

The FAA has decided that effective reference to and tracking of simulation equipment requires the use of FAA-assigned identification numbers for that equipment instead of serial numbers assigned by the manufacturer of such equipment. Accordingly, proposed paragraph (d)(2)(v) has been reworded to reflect this requirement and is adopted as paragraph (d)(2)(iv).

Paragraph (e) proposed the following:

or terminated within the last 5 years; and

(iii) Contributed materially to the revocation, suspension, or termination of that certificate and who will be employed in a management or supervisory position, or who will be in control of or have a substantial ownership interest in the training center.

STI commented that proposed paragraph (e)(2)(i) should be modified to specifically state that the management or supervisory person formerly worked in a management or supervisory position for a certificate holder whose certificate had been revoked, suspended, or terminated within the previous 5 years. FSI also suggested that proposed (e)(2)(i) be linked with subparagraph (e)(2)(ii) with an “and” at the end of (e)(2)(i).

The construction of proposed paragraph (e) means that the conditions of (e)(2)(i), (e)(2)(ii), and (e)(2)(iii) all apply to persons that a training center employs or proposes to employ. These three paragraphs are linked together by the semicolons and the “and” following (e)(2)(ii). It is not necessary to repeat the “and” after (e)(2)(i). To correct an editorial error in the proposal, the FAA has inserted the word “or” to appropriately separate paragraphs (e)(1) and (e)(2).

This section is renumbered as § 142.11 and adopted with the several changes discussed.

§ 142.15 (Adopted as § 142.13) Management and Personnel Requirements

The FAA proposed in this section that a training center must show that it has and maintains a sufficient number of qualified instructors, evaluators, and management personnel competent to perform required duties.

Only one comment was received concerning this section. That comment stated that this section was unnecessary and should be deleted.

The FAA has determined that the proposal referred to above is necessary to ensure that a training center can operate in compliance with the certification provisions contained in proposed part 142. The FAA needs this information, along with the other information required by this part, to approve applications for certification under part 142. Therefore, this section is renumbered as § 142.13 and adopted as proposed.

§ 142.17 (Adopted as § 142.15) Facilities

In this section, the FAA proposed the following in paragraph (b):

(b) An applicant for, or holder of, a training center certificate shall establish and maintain a principal business office that—

(1) Has a mailing address in the name shown on its training center certificate application, or training center certificate, after it is issued; and

(2) Has facilities adequate to maintain the records required by this part.

(3) Is not shared with another certificate holder; however, automated recordkeeping systems approved by the Administrator may be shared by more than one training center or certificate holder.

This paragraph would require a training center to establish and maintain a principal business office that could not be shared with a part 121, 135, 141, or 142 certificate holder. The intent of this paragraph was to ensure that the principal business office of a training center is located at a permanent physical location with the characteristics of an ordinary business office. It was intended to preclude the use of transient locations with inadequate facilities for properly maintaining records.

The FAA proposed this paragraph to preclude certain difficulties with commingled records or with changing standards for some students of training entities offering training under more than one part of 14 CFR. Commingling is considered undesirable because different standards apply to entities certificated

would it be workable for a satellite training center.

The FAA has considered AMR's comment and has revised proposed paragraph (b) accordingly to provide that records may be kept where training or testing takes place.

Under the NPRM, training centers certificated under part 142 would be permitted to provide ground instruction as well as training in flight simulators, flight training devices, and aircraft; however, in order to be certificated under part 142 paragraph (d) proposed that a training center applicant, in effect, would be required to "have exclusive use of" at least one FAA-approved flight simulator.

Several comments had to do with sharing of training facilities or flight simulators by several arrangements between the sharing parties.

FSI, several part 121 certificate holders, and the Regional Airline Association (RAA), commenting on proposed paragraph (d) stated, that the proposed requirement to have "exclusive use of" at least one flight simulator would preclude "dry leasing" of flight simulator time.

For the purposes of this section, the FAA intended that the term "exclusive use" include "dry leasing." The FAA recognizes that "dry leasing" is a normal practice in the industry, and that its continuation is essential to the industry for at least the foreseeable future. However, for clarity, the wording of this provision has been revised to require that the training center have the flight training equipment "available exclusively" for adequate periods of time. This is to distinguish the requirements of this section from other "exclusive use" requirements of other regulations, which may not include "dry leasing." It should be noted that the FAA did not propose to prohibit sharing of flight training equipment. In fact, the FAA anticipated that such sharing would be likely. Therefore, the FAA has revised proposed paragraph (d) by adding the words "available exclusively for adequate periods of time."

A few commenters, also commenting on proposed paragraph (d), recommended that the proposal to have readily available at least one flight simulator as a prerequisite to apply for a part 142 certificate be clarified in the rule language. Gateway Technical College commented that institutions such as theirs are unable to afford to own or lease a flight simulator, but that they are able to provide a needed service by use of flight training devices only. Gateway and Broward Community College suggest that the FAA allow a "low-end part 142 school" or a limited part 142 certificate.

The FAA believes that flight training in aircraft and in flight training devices is adequately covered by part 141 pilot schools and that the primary emphasis of part 142 training centers will be training with flight simulators. However, the FAA believes that essentially equivalent training can be accomplished by use of advanced flight training devices that represent a specific aircraft in cockpit configuration, function, and flight handling characteristics when those flight training devices are supplemented with training in the same type aircraft. Advanced flight training devices with those characteristics are currently qualified by the FAA as Level 6 and Level 7 flight training devices. Therefore, proposed paragraph (d) has been reworded to permit an applicant to obtain a part 142 certificate if it has an advanced flight training device.

In an apparent comment to proposed § 142.17(d), ATA and several part 121 certificate holders commented that this section would "require a part 121 certificate holder . . . to purchase duplicate simulators, CBT stations, training aids, and other training devices for use in the part 142 school even if its part 121 devices are not 100% utilized and (are) available for contract training."

As also discussed above under proposed § 142.13 in response to a comment from United, the FAA did not intend to require duplication of flight training equipment. The commenters may have interpreted proposed paragraph (d) to mean that the exclusive use provision of proposed § 142.17(d) could require some duplication. The FAA did not intend for air carriers to needlessly duplicate existing equipment. It only intended that the training center have exclusive use of the equipment for the period of time that is needed. As stated above, the FAA has revised proposed paragraph (d) to state that the facilities

This section proposed that training centers would be permitted to establish satellite training centers.

Boeing and AIA commented that some provision should be made for training in remote areas.

Although part 142 provides for training centers and satellite training centers, the FAA does not intend to prevent training at sites other than the training center location or satellite training center location. Such training is permissible if the training center or satellite training center of the certificate holder complies with the requirements of part 142 relating to that remote training. The FAA will provide for training at remote sites through the training specifications.

AMR asked if a satellite training center also would have to have a flight simulator, its own principal business office, and if the parent training center's instructors could instruct at both a training center and at a satellite training center. It stated that there is an inference that a satellite training center would have to apply for a certificate, but that proposed § 142.19 would not require a certificate for a training center. It suggested that only the main training center hold a certificate.

The FAA agrees. The FAA proposed that only the principal training center must hold a training center certificate and this proposal has not been changed in the final rule.

The discussion of this section in the NPRM indicated that a satellite training center would have to have at least one simulator and the other facilities required by this part. However, it should be noted that proposed § 142.17 has been revised in response to comments to allow a person with an advanced flight training device (i.e., a Level 6 or Level 7 flight training device) to apply for a training center certificate. Thus, a satellite training center would be permitted to operate with such a device in lieu of a flight simulator.

A satellite training center need not have separate management personnel. It does not have to have a separate principal business office. Instructors and evaluators may work at more than one training center or satellite training center, provided those persons meet the requirements of part 142, as required by proposed § 142.19(a)(2), which is adopted as § 142.17(a)(2) in the final rule.

See the discussion of the following section for restrictions on satellite training centers located outside the United States.

This section is renumbered as § 142.17 and adopted by revising proposed paragraph (a)(2) to better clarify the location of the supervisors.

§ 142.20 (Adopted as § 142.19) Foreign Training Centers: Special Rules

The FAA proposed, under § 142.20, that a training center or satellite training center may be located outside the United States only if it is in a location approved by the Administrator. This section further proposed that a training center or satellite training center located outside the United States may issue U.S. pilot certificates to U.S. citizens only but may add ratings, authorizations, and endorsements to all pilot certificates issued by the FAA.

Three comments were received concerning this proposed section.

FSI asked what authority the FAA has to approve or deny locations of training centers outside the United States, since the Departments of Commerce, Defense, and State have jurisdiction over this matter.

The FAA is withdrawing its proposal to approve the location of training centers outside the United States. It is sufficient to set the standards for certification of training centers located inside and outside of the United States. Therefore, proposed paragraph (a) has been amended to remove references that the Administrator must approve the location of training centers outside the United States. Further, paragraph

by the FAA.

As indicated above in response to FSI's comment regarding approval of the location of training centers, the FAA has amended proposed paragraph (a).

In paragraph (b), the FAA proposed that a training center or satellite training center located outside the United States may issue U.S. pilot certificates to U.S. citizens only but may add ratings, authorizations, and endorsements to all pilot certificates issued by the FAA when approved to do so.

Proposed paragraph (b) is revised in this final rule to remove the reference to satellite training centers located outside the United States.

The FAA has made editorial changes to this section to make it clear that a training center may prepare and recommend applicants for certificates and ratings, but may not actually issue a certificate or rating without authorization to issue a specific kind of certificate or rating.

Also, the FAA proposed, in § 142.7, a permanent certificate. The certificate could have been suspended or terminated, but would not require renewal. The objective of this proposal was to simplify paperwork and reduce the workload for the FAA and applicants. However, the FAA has determined that there is a need to provide for periodic renewal of a certificate for those training centers outside the United States in order to ensure adequate safety oversight. Other air agencies outside the United States, such as repair stations certificated under part 145, have annual renewal requirements.

This section is renumbered as § 142.19 and adopted with the changes discussed.

§ 142.21 Prohibited Drugs

Reserved. See the discussion above entitled "Part 142."

§ 142.23 Testing for Prohibited Drugs

Reserved. See the discussion above entitled "Part 142."

§ 142.25 Refusal to Submit to a Drug Test

Reserved. See the discussion above entitled "Part 142."

§ 142.27 Display of Certificate

No comments were received concerning this proposed section. Therefore, it is adopted as proposed.

§ 142.29 Inspections

This proposed section would require training centers to permit inspections by the FAA at reasonable times and places.

AMR made some suggestions for essentially editorial changes.

This section was adopted as proposed, with the small editorial changes suggested by the commenter.

§ 142.31 Advertising Limitations

This section proposed to restrict training center advertising to that training that has been approved by the Administrator.

Boeing and AIA commented that the proposal would restrict it from offering non-FAA approved training to non-U.S. customers. Several air carrier certificate holders commented that the proposal would preclude the conduct of training not under the jurisdiction of the Administrator, such as training for foreign corporations that would meet the requirements of that foreign country. Others commented that

Andrews University asked whether this section would preclude a part 142 training center from operating under part 61. It suggested that training centers should be allowed to operate under part 61.

Part 61 is not considered an “operating” part of 14 CFR. Training centers certificated under part 142 will train to meet the requirements of part 61, among other parts. A training program or curriculum approved for presentation under part 142 may not be presented to meet the requirements of part 61 without a part 142 training center certificate.

This section is adopted as revised.

§ 142.33 Training Agreements

No comments were received concerning this proposed section. Therefore, it is adopted as proposed.

Subpart B—Aircrew Curriculum and Syllabus Requirements

§ 142.35 Applicability

This section specifies that the training programs described by this subpart apply to that segment of aviation frequently called “general aviation” that operates under part 91, and that is not required by regulation to have a training program.

Airbus commented that this subpart is not applicable to training provided “by part 25 aircraft manufacturer’s training centers to its employees, U.S. certificated employees of the aircraft manufacturer, and FAA air carrier inspectors.”

This subpart applies to all training center activity except that provided by a part 121 certificate holder to another part 121 certificate holder or by a part 135 certificate holder to another part 135 certificate holder, unless the certificate holder providing such training chooses to become a part 142 certificate holder.

This section is adopted as proposed.

§ 142.37 Approval of Flight Aircrew Training Program

The FAA proposed, in proposed paragraph (c)(1), that training programs submitted for approval specify which courses are part of a specialty training curriculum. Core curricula and specialty curricula are defined in § 142.3.

Proposed paragraphs (c)(2) and (3) require applicants, when filing an application for training program approval, to indicate which requirements the training program curriculum will satisfy and which requirements the training program curriculum will not satisfy.

AMR commented that the proposed provision of § 142.37(c)(1) needs clarification. In simplest terms, it states, not every course must be designed to accomplish all the learning objectives required for every practical test.

ATA and several part 121 certificate holders commented that proposed paragraph (c)(1) does not make clear what constitutes an approved training program. They cite the detail of § 121.424 and appendix H of part 121 as examples of training program detail for the ATP certificate and airplane type rating. They state that it appears that an approved training program for a particular certificate or rating would consist of the maneuvers, procedures, and exercises required for the certification practical test.

The FAA agrees with the commenters about training to meet the requirements of the PTS. The areas of aeronautical knowledge for each certificate and rating are listed in the applicable section of part 61. The PTS lists the tasks, conditions, and standards of performance for all certificates and ratings. Currently, the PTS, inspector’s handbooks, appendix A of part 61, and appendices E, F, and G of part 121 list maneuvers and procedures for a curriculum not only the ATP certificate and airplane type rating. Guidance on the content, style, and length of all written tests is in other documents. Other consider-

as a condition of (approval of a training program).” They state that they would object on the grounds that the public was not given an opportunity to comment on requirements imposed administratively.

The commenters did not provide information on their specific concerns; however, the FAA agrees in general that additional requirements unrelated to training should not be imposed without opportunity for public comment.

This section was amended by making minor editorial changes and by adding a new paragraph (b) and rearranging other proposed paragraphs. The FAA determined that a new paragraph (b) is needed to make clear that curricula approved under SFAR 58 are approved without modification for use in this part.

The section is adopted as revised.

§ 142.39 Training Program Curriculum Requirements

This section proposed that each training program curriculum submitted for approval would have to contain a syllabus, minimum flight training equipment requirements, and minimum instructor and evaluator qualifications for each proposed curriculum. However, for AQP, the FAA proposed that approval of a curriculum under SFAR 58 would, for an applicant, constitute complete approval of that curriculum for use by a training center certificated under part 142, since the AQP application contains curriculum criteria at least as detailed as the part 142 curriculum requirements set forth in § 142.39.

Airbus commented that the section should be restructured to provide for initial and final approval of training program curricula.

Different stages of initial and final approval are specifically not a feature of part 142. After determining that a proposed training program meets all applicable requirements, the Administrator will approve the training program. If approval of a training program curriculum proves to have been inappropriate, the Administrator may use the authority of §§ 142.7 or 142.13(e) to suspend or revoke a certificate. The intention is to simplify the application and approval process. For the reason stated, this section is not revised to include a provision for initial and final approval stages.

Paragraphs (c) and (d) of this section proposed that each curriculum submitted for approval must include:

(c) Minimum instructor and evaluator qualifications for each proposed curriculum;

(d) A curriculum for initial training and continuing training of each instructor or evaluator employed to instruct in a proposed curriculum.

United commented that paragraphs (c) and (d) are not required and are overly burdensome for part 121 certificate holders.

The FAA believes that these paragraphs are necessary controls, and that presenting the instructor and evaluator qualifications to the FAA at the time of application for a part 142 certificate and changes to its curriculums would cause almost no additional burden to a part 121 certificate holder. It is even likely that existing documentation for these positions could be used in its existing format. The FAA has determined that these paragraphs should be adopted to ensure that instructors meet, and maintain, the skills considered essential for properly instructing their students.

Paragraph (e) proposed:

(e) For each training program that provides for the issuance of a certificate or rating in fewer than the minimum hours prescribed by part 61 of this chapter for training, testing, and checking conducted under part 142 of this chapter—

paragraph (e)(2) would be a costly and near-impossible task, that data would be sparse, and would not necessarily validate success or failure of the attempted program.

As discussed also in § 61.109, the intention of allowing a further reduction in the minimum hours of aeronautical experience is to allow maximum flexibility to a training center to develop, at some future date, innovative curriculums that might adequately train for a specific certificate or rating in fewer than the current minimum number of hours. In order to gain the privilege of further reducing minimum training hours, a training center will be required to demonstrate that it can provide proper training in fewer hours. To accomplish this, it would have to propose a method of tracking graduates and collecting data to validate training program effectiveness. Data to be tracked to point to program effectiveness might include incidents, accidents, hours flown, and type of flying. A training center would have to present historical data covering at least 1 year (or other period of time approved by the Administrator) before it could be granted a reduction in the minimum hours prescribed in this section. Data covering performance over this period of time is considered necessary to properly evaluate student performance. Data covering a shorter term would not be sufficient to allow the FAA to evaluate performance during varying seasonal conditions.

In a general comment to this section, TWA pointed out that the requirement for a letter of authorization did not appear in the proposed rule text.

The FAA did not intend to propose such a requirement. The NPRM preamble mistakenly stated that proposed paragraph (a)(4) would require a training center to issue annually a letter of authorization to each instructor for each course that instructor may teach. The final rule does not adopt such a requirement.

The FAA has reworded the reference to a curriculum, which appeared in this proposed section to instead reference a curriculum containing a syllabus to indicate that a curriculum is implemented by a syllabus. This editorial change is to maximize standardization with training program terms already in use and widely accepted.

This section is adopted with the changes discussed.

Subpart C—Personnel and Flight Training Equipment Requirements

This subpart contains instructor and evaluator eligibility requirements, addresses instructor and evaluator privileges and limitations, and addresses instructor and evaluator training, testing, and qualification for training programs approved under subpart B. This subpart also contains rules governing flight training equipment requirements.

§ 142.45 Applicability

This proposed section sets forth the personnel and equipment required for training that is to meet the requirements of part 61.

Airbus commented that this section should be restructured to exempt employees of the training center, U.S. certificated employees of the aircraft manufacturer, and FAA inspectors.

The FAA does not agree. The persons cited by the commenter are required to meet the training and certification requirements of part 61.

AMR commented that the proposal does not make clear whether an instructor or evaluator would be subject to the proposed requirements contained in both subpart C and subpart G of this part. It states that current training center practice is to use instructors to teach pilots who operate under various parts of 14 CFR.

Because the FAA has decided to delete proposed subpart G, the commenter's question is academic in this instance. However, an instructor or evaluator may instruct non-air-carrier customers and air carrier

rating and meet at least the commercial pilot aeronautical experience requirements.

ATA and several other part 121 certificate holders commented that the words “at the time of accepting employment” in proposed paragraph (a)(3)(ii) was too restrictive and might preclude the hiring of some otherwise well-qualified potential instructors.

The FAA agrees with the commenters. Accordingly, this paragraph has been revised to provide that instructors may qualify for designation by training centers within 2 years of having been qualified and current to instruct for a part 121 or part 135 certificate holder in the type airplane in which the instructor is to be designated by the training center.

ATA and others also commented that ATP certificate holders should be able to instruct others without holding any other certificate.

The FAA does not believe that the holder of an ATP certificate should be permitted to instruct persons by virtue of holding the ATP certificate, except in air transportation service as authorized by § 61.169 of this chapter. The authority of § 61.169 does not extend to instructing other airmen to qualify for the ATP certificate or instructing other holders of an ATP certificate for added ratings, except within the narrow and specific instance of instructing in air transportation service.

Moreover, in response to these commenters, the FAA has determined that instructor qualification requirements of part 142 are at least equivalent to the knowledge and skill requirements for a ground instructor certificate regardless of whether the instructor holds an ATP certificate. Accordingly, the FAA has deleted paragraph (a)(3). Other provisions of proposed paragraph (a)(3) have been moved to other paragraphs.

AMR commented that training centers should be permitted to employ persons who are not pilots to be instructors, such as maintenance instructors, and that the rule language should address that possibility.

The FAA agrees and paragraph (a) has been reworded to make it clear that the requirements of the section, and the subpart, apply only to persons who are employed as instructors in a flight training course that is subject to approval of the Administrator, as discussed under § 142.31. The FAA stated in the discussion of that section that any training offered by a training center that goes in whole or in part to satisfying a requirement of 14 CFR must be approved; however, training for other purposes need not be approved.

Paragraph (b) proposed the following:

(b) A training facility operating under an exemption to part 61 prior to August 1, 1996 may allow a person who has been employed as a simulator instructor for that training facility to continue to instruct provided the training facility—

* * * * *

(ii) Instructs only in qualified and approved flight simulators in which that person has been authorized by the Administrator to instruct within the 12 months immediately preceding certification of the employing training center.

AIA commented that paragraph (b)(2)(ii) does not allow existing instructors to transition to new equipment without complying with the new part 142 instructor qualification provisions. It states that the proposal is too restrictive and recommends that it be deleted.

AIA is correct in its interpretation that instructors transitioning to new equipment must comply with part 142 instructor qualification provisions. As an exception, proposed paragraph (b)(2)(ii) (revised and adopted as paragraph (a)(6)(iii)) is a “grandfather” provision only for persons who are employed as simulation instructors on the effective date of this final rule and who instruct only on the same equipment. Those persons who do not meet the instructor qualifications of part 142 will not be allowed expanded instructor privileges unless the instructor applicant meets the standards prescribed by part 142.

This is not a correct interpretation of the proposal. The alternative requirements for instructors that are outlined in preceding paragraphs provide for a training center to employ instructors in simulation only who do not hold an airman medical certificate.

Since the publication of the NPRM, and in response to a petition from the public to amend existing exemptions, the FAA has allowed persons to qualify as simulator-only instructors without holding an instructor certificate, if those persons meet certain alternative qualifications. The FAA has determined that it is appropriate to include those alternative qualifications in this final rule; therefore, this section has been restructured accordingly. The alternative qualifications will allow training centers to employ as instructors persons who are former military pilots, former or current airline pilots, and other persons who may not hold an instructor certificate. Instructors who instruct in a required crewmember seat in flight must hold a flight instructor certificate with appropriate ratings and an airman medical certificate. The alternative qualification requires a training center to train a potential instructor in specified subjects, and to administer a written test following the instruction. The written test must be approved as a part of the training program. The test must be of similar complexity, difficulty, and scope as the written test for flight instructor airplane and instrument flight instructor. Training center certificate applicants and training centers may consult publication FAA-T-8081-18, *Flight and Ground Instructor Written Test Book* for guidance in developing the written test. The FAA does not intend that the test include questions about flight maneuvers such as turns about a point, chandelles, and spins.

This section is adopted with the changes discussed.

§ 142.49 Training Center Instructor Privileges and Limitations

This section proposed that, to instruct in an aircraft, a training center instructor must hold a current flight instructor certificate with certificates and ratings applicable to the aircraft used for instruction, hold at least a valid second class medical certificate, and meet the recency of experience requirements of part 61. These proposed requirements for aircraft flight instructors are the same as those currently required by part 61.

AMR commented that, by using the words “training, testing, and checking” in proposed paragraph (b), the FAA would impose these requirements on evaluators as well as instructors, and noted that there are no proposed sections dealing with evaluator privileges and limitations. AMR suggested changing the title of this section to include evaluators.

The FAA agrees that the title should be changed as recommended and has reworded the title accordingly and has added evaluation to this paragraph.

Proposed paragraph (c) included the following:

(c) A training center may not allow an instructor to—

(1) Excluding briefings and debriefings, conduct more than 8 hours of instruction in any 24-consecutive-hour period.

FSI, ATA, and several air carrier certificate holders commented that the duty times proposed in this paragraph are too restrictive.

Flight instructor duty time was discussed under § 61.169. As discussed in that section, the FAA is convinced that it is in the interest of safety to assure that instructors are not unduly fatigued when instructing pilots. The proposed duty-time limitations are considered necessary to ensure that instructors are sufficiently alert when giving required instruction.

The FAA has, however, amended this and § 61.169 to exclude briefings and debriefings in response to the concerns of these commenters.

FSI commented that the words “. . . any 24-consecutive-hour period” in proposed paragraph (c)(1) be changed to “. . . a day.”

it was not required before.

The FAA agrees with both commenters. Paragraph (c)(3)(iv) has been amended to specify that a medical certificate is required only when instructing from a required crewmember seat in an aircraft in flight. This change simply reiterates part 61 requirements for an instructor to have a medical certificate when acting as required flight crewmember.

This section is adopted with the changes discussed.

§ 142.51 Qualifications to Instruct in a Flight Simulator or a Flight Training Device

Reserved. See the discussion above entitled “Part 142.”

§ 142.53 Training Center Instructor Training and Testing Requirements

Section 142.53 proposed initial and annual recurrent training that would be required of all training center instructors.

Paragraph (a) proposed:

(a) Prior to authorization to instruct a course of training, testing, and checking, and except as provided in paragraph (c) of this section, every 12 calendar months beginning the first day of the month following an instructor’s initial authorization, a training center certificate holder must ensure that each of its instructors meet the following requirements:

(1) Each instructor must satisfactorily demonstrate to an authorized evaluator knowledge of, and proficiency in, instructing each course of training for which that instructor is authorized to instruct under this part.

FSI commented that the proposal in paragraph (a)(1) should provide that an instructor’s demonstration would be made “. . . in a representative segment of a course.” According to FSI, this change would provide a more suitable way to determine an instructor’s knowledge and proficiency in multiple subjects in different courses for various aircraft types.

Paragraph (a) has been reworded. Changing the wording to “instructing in a representative segment of each curriculum,” allows evaluation of instructors in a broad sampling of all subjects. However, the FAA has specified that the evaluation must include a representative segment from *each* curriculum.

Paragraph (b)(2), as originally proposed, provided that “An instructor who is unable to hold a medical certificate may not instruct. . . .” In the SNPRM referred to earlier, the FAA proposed a change to paragraph (b)(2) to eliminate the words “who is unable to hold a medical certificate,” because that restriction was believed to be unnecessary.

For clarification, the FAA has further revised paragraph (b)(2) of the final rule to specifically permit an instructor to provide instruction even if he or she does not hold an airman medical certificate, provided that the instructor is otherwise qualified. It is also revised by removing an obsolete reference “advanced simulation plan.”

Proposed paragraph (b)(2)(ii)(B) requires instructors to participate in an in-flight observation training course, that includes three takeoffs and three landings, and that includes performing at least 1 hour of LOFT as the sole manipulator of the controls. The 1 hour of LOFT must be performed in a flight simulator that replicates an aircraft of the same class and, if a type rating is required, of the same type as the aircraft represented by the qualified and approved flight simulator in which that instructor is designated to instruct.

Several commenters stated that paragraph (b)(2)(ii)(B) refers to Level C or Level D flight simulators, and suggested that appendix H of part 121 be changed by this rulemaking to indicate levels instead of phases.

The FAA does not agree. The commenter's suggestion apparently would allow training centers to provide recurrent training to instructors as infrequently as every 24 months. The FAA believes that 12 months is the maximum period that should be allowed between recurrent qualifications. Therefore, the FAA has adopted the recurrent training requirement once each 12-month period, as proposed.

General Comments to § 142.53 as Proposed

ATA commented that, in many cases, part 121 instructor training is more comprehensive than the training that would be required under this section and under § 142.55. It recommended that wording be incorporated to credit an instructor with equivalent training that he or she may have completed in a part 121 instructor training course.

The FAA agrees. Accordingly, a new paragraph (d) has been added to permit an instructor to receive credit for equivalent instructor training courses taken under part 121 or other courses the Administrator finds equivalent.

AMR commented that this section and title should be amended to specify that instructors who teach in courses not leading to pilot certification under part 61 are not subject to the provisions of this section.

The proposed requirements contained in this section apply to instruction designed to satisfy only various requirements of 14 CFR. They address, among other things, courses for review, proficiency, added ratings, and authorizations in addition to certification. As discussed in the section-by-section discussion of § 142.31, the instructor qualification requirements of part 142 do not apply to courses that are not designed to satisfy any part of 14 CFR and that are not subject to approval of the Administrator.

One commenter asked why simulation-only instructors are not required to complete initial or recurrent training in aircraft, the same as instructors who instruct in flight.

The FAA has used past experience and recommendations from a joint industry-FAA working group to form alternatives to in-flight training, testing, and checking that ensure an equivalent level of safety, since simulation-only instructors will not be instructing in aircraft.

ATA and several part 121 certificate holders commented that proposed § 142.91 in subpart G, which paralleled this section and has been withdrawn, should have a paragraph added to require an annual written test and an annual proficiency check in each flight simulator, flight training device, and/or aircraft in which the instructor will be instructing. According to these commenters, the test and check should cover the maneuvers that the instructors will be instructing in.

The FAA agrees and has revised this proposed parallel section accordingly.

AMR asked if an instructor could instruct under subpart C and subpart G at the same time. It recommended that this should be permitted.

Although subpart G has been withdrawn, instructors will be permitted to provide instruction to air carrier clients and non-air-carrier clients if otherwise qualified.

AIA commented: "This (sic) is more restrictive than existing check pilot requirements. Why?"

The commenter apparently is referring to this entire section as being restrictive. The FAA would not describe this as more, or less, restrictive than existing check pilot requirements. Check pilots are employed in parts 121 and 135. They provide checks pursuant to the comprehensive training programs required by those parts. A check pilot has functions and responsibilities different from those of a part 142 training center instructor. Thus, the training and checking provisions proposed for part 142 instructors have been tailored to meet part 142 requirements. They necessarily are different than the training and testing requirements applicable to check pilots performing checks under part 121 and part 135.

This section is adopted with the several changes discussed.

training center that includes the following:

- (i) Pilot evaluator duties, functions, and responsibilities;
- (ii) Methods, procedures, and techniques for conducting required checks;
- (iii) Evaluation of pilot performance; and
- (iv) Management of unsatisfactory checks and subsequent corrective action.

AMR, commenting on proposed paragraph (a), stated that it was not clear if training center evaluators will have authority equivalent to designated examiners or pilot proficiency examiners, and asked for clarification.

Under part 142 an "evaluator" is a person who determines competence of persons applying for a number of different certificates and ratings subject to 14 CFR on behalf of the Administrator. By contrast, designated examiners and pilot proficiency examiners have more limited authority.

ATA and several part 121 certificate holders commented that proposed § 142.93 in subpart G, which paralleled this section and has been withdrawn, should have a paragraph added to require an annual written test and an annual proficiency check in each flight simulator, flight training device, and/or aircraft in which the instructor will be instructing. According to these commenters, the test and check should cover the maneuvers that the instructors will be instructing in.

The FAA agrees and has added a new paragraph (a)(4) to clarify the request of the commenters.

As discussed above, under § 142.53, pursuant to an ATA comment, the FAA has determined that it is appropriate to give credit to potential evaluators who have completed a part 121 evaluator training course.

Accordingly, a new paragraph (c) has been added to permit an evaluator to receive credit for equivalent evaluator training courses taken under part 121 or part 135 that the Administrator finds equivalent.

In response to several comments on proposed § 142.93 (withdrawn) the FAA has added a new paragraph (d) to this parallel section to except evaluators, qualified in accordance with SFAR 58, from the evaluator requirements of this section.

In addition to the above-referenced revisions, several editorial changes have been made. In proposed paragraph (b) the term "instructor" is replaced with "evaluator." The term "curriculum" has been substituted for the term "training course" and the term "tests" has been substituted for the term "checks." The editorial changes have been made to bring the terms into conformity with the commonly accepted definitions as used in numerous other parts of 14 CFR and numerous FAA publications.

With the changes discussed, this section is adopted as proposed.

§ 142.57 Aircraft Requirements

Paragraph (a)(1) and (a)(2) of this section proposed that training center aircraft used for instruction be civil aircraft of U.S. registry if used in the United States, and that training centers located outside the country could use aircraft registered in the host country.

Several commenters, including in effect Airbus, discussed the need to train in customer-owned aircraft which might be registered in another country, be operated by the aircraft manufacturer during pre-certification, or be operated under an export certificate of airworthiness.

The FAA agrees and has determined that it is unnecessary to specifically provide for the registration of the aircraft being used. It is sufficient that the training center will have to comply with the registration requirements of the country of operation. Accordingly, proposed paragraphs (a)(1) and (2) have not been

curriculum. The preamble to paragraph (a) contained the statements "Simulation has benefit only if behaviors learned can be transferred to the aircraft. No effective transfer of learning has been demonstrated except from flight simulators and flight training devices that accurately replicate the performance of an aircraft."

ATA and several part 121 air carriers commented that the statement about effective transfer of learning is untrue.

Based on its experience with flight simulation and on study evidence available to its National Simulator Program Manager (NSPM), the FAA has concluded that the statements are true. While some learning may transfer from devices that do not accurately replicate aircraft, the experience gained is not adequate to justify their use as a sole means of training, testing, and checking.

A few air carriers commented that they were not sure what was meant by the words "make, model, and series" used in an example that was provided in the NPRM preamble to proposed paragraph (a)(1), which stated, "If part 61 . . . requires landing in a particular make, model, and series aircraft, then a flight simulator used to simulate that aircraft would have to be qualified and approved both for the visual landing and to simulate the make, model, and series of aircraft." They provide an example of an aircraft type and different models of that type.

The commenters are correct. The FAA did not intend to distinguish between manufacturers' models of the same aircraft type. To make it clear that only the particular aircraft type need be simulated, as intended, the FAA has added the words "or aircraft type" to the text of paragraph (a)(1) in the final rule.

Section 142.59(c)(1) proposed that flight simulators and flight training devices used by training centers be maintained to ensure the reliability of the performances, functions, and all other characteristics that were required for initial qualification of the equipment.

One commenter pointed out an editorial omission of the word "qualification" in the text of this paragraph. The commenter indicated that the last word of proposed paragraph (c)(1) should be "qualification" and not "approval."

The technical guidelines for flight simulators are listed in AC 120-45, as amended. That AC defines qualification as distinct from, and preceding, approval of a flight simulator. The FAA has determined that it should continue the use of commonly accepted words to avoid possible confusion.

Section 142.59(c)(3) proposed that flight simulators and flight training devices used under part 142 be given a functional check before being used. Further, this paragraph proposed that training center instructors must keep a discrepancy log, and enter all discrepancies in that log at the end of each training session or check.

One commenter asked how often the preflight requirement must be met and also the purpose of the requirement.

The preflight is required each day the flight simulator is used. The FAA added the words "each day" to proposed paragraph (c)(3) to make clear the requirement for frequency of preflight inspections. The purpose of preflight inspections is for the instructor to determine whether the applicable Simulator Component Inoperative Guide (SCIG), if any, has been met, or whether all simulator components needed for a specific training or testing period are present and operative. The FAA believes that, to ensure effective training, a flight simulator or flight training devices must accurately replicate the performance of an aircraft. The FAA can determine that flight simulation accurately replicates an aircraft only if all components of a flight simulator or flight training device are checked for proper operation before the device is used.

Section 142.59(d) proposed that, unless otherwise authorized by the Administrator (in an SCIG), all components on a flight simulator or flight training device used by a training center must be operative to ensure faithful replication of aircraft capabilities.

may teach and submit it to the FAA for approval. The FAA will review and approve an SCIG developed and submitted by a training center.

Section 142.59(e) proposed to allow training centers to use flight simulators in approved courses without specific route or terminal aids and visual scenes.

While the FAA did not receive comments on this proposed section, ATA and others commented in response to the proposed companion section, § 142.97, (since withdrawn), that operator specific routes may be necessary. The commenters stated that the relaxed specific route requirements during LOFT would not meet the requirements of § 121.409(b)(3).

The FAA understands the commenter's concern. LOFT or other LOS may be used for purposes other than necessarily satisfying § 121.409. If a particular air carrier wants a particular route or other detail represented, it may require that of the training center with which it contracts. It is inefficient for certification and type rating training and testing for all airmen to be subject to an absolute requirement for training along a particular route, which may be "repositioned along" anyway. The FAA believes it is appropriate to leave it to the discretion of a particular air carrier to determine if it wants a specific route simulation in its training program. Therefore, this section is adopted as proposed.

Jet Exam commented that the language of this section could be interpreted to mean that a training center applicant would have to obtain training program approval or a training course approval before it could request approval of a simulator, and that this would be an unnecessary burden on the applicant.

The FAA agrees with the commenter's observation that obtaining approval of a training course before obtaining approval for a flight simulator could be an economic burden. However, the FAA did not propose that a certificate applicant would have to obtain training program approval or a training course approval before it could request approval of a simulator.

A commenter suggested that the acronym "NSPM" should be changed to "the Administrator." According to the commenter, this would allow for the possibility of renaming of that function or redelegation of its functions.

The FAA notes that, while the acronym "NSPM" is used in the NPRM preamble to this section, it did not appear in the NPRM proposed rule text. However, the FAA did use the term "Administrator" in the rule text of the NPRM and final rule as the commenter has suggested.

The FAA added a clause excepting AQP from the requirements of this section, to be consistent with the exception of AQP from the requirements of § 142.39. With that addition, and the other changes discussed, this section is adopted as proposed.

Subpart D—Operating Rules

This subpart sets forth proposed operating rules for training centers that provide training in accordance with subpart B of part 142.

§ 142.61 Applicability

The FAA proposed in this section that the operating rules in this subpart would apply to training centers providing training to clients other than air carrier clients.

Airbus commented that the applicability of subparts D and E should be amended to permit aircraft manufacturer training centers who intend to train only part 121 aircrews, their own employees, U.S. certificated employees of the manufacturer, and FAA inspectors to conduct that training under subparts F, G, H, and I of part 121. The commenter states that part 121 requirements are the most appropriate criteria for these trainees since their duties are related to large aircraft that are operating in air carrier service. Airbus made the same comment about FAA inspectors in comments about several other sections. Other commenters made an essentially identical comment in reference to some applicability sections.

Several of the comments made about this section are similar, or identical to, comments made about proposed §§ 61.63, 61.64, 61.157, and 61.158. The comments generally addressed applicability of specific training programs to various groups of airmen and the perception of a dual standard for an ATP certificate.

The FAA response to those similar or identical comments apply also to this section. Refer to those sections for discussion of related comments.

For the reasons discussed, this section is adopted as proposed.

§ 142.63 Privileges

Section 142.63 proposed to permit training center instructors and evaluators to meet recency of experience requirements in a flight simulator or flight training device, if the flight simulator or flight training device is used in a course approved in accordance with subpart B or subpart F, as applicable.

This section was revised to delete a reference to subpart F, which has been withdrawn, and to recognize that AQP makes separate and valid provisions for recency of experience of simulation instructors. With the revisions mentioned, this section is adopted as proposed.

§ 142.65 Limitations

Because the FAA intends that flight simulators used in testing, checking, or LOS provide the same time constraints and sequential, or overlapping, circumstances that occur in an actual aircraft, § 142.65(a) proposed to prohibit the use of flight simulator or flight training device repositioning, freeze, or slow motion features during testing, checking, and LOFT.

ATA, several part 121 certificate holders, and an aircraft manufacturer commented that prohibiting the use of repositioning during LOFT might cause several hours of simulated cruise flight with very little value.

The FAA agrees with the commenters, and has revised proposed paragraph (a) by adding paragraph (a)(2) to permit the use of reposition along a route of flight to a point where the descent and approach phase of the flight begins. Also, in paragraph (a)(1), any slow motion, hold, or reposition features may be used at any time during training and practice, to help stimulate the simulation industry by helping minimize nonproductive time spent in a flight simulator.

Proposed § 142.65(b)(1) would require a crewmember qualified in the aircraft category, class, and type, if a type rating is required, to occupy each crewmember position during testing, checking, or LOS. During Category II and Category III testing, the copilot position would have to be occupied by a pilot qualified to perform the duties of an SIC for Category II or Category III operations, as applicable.

Airbus commented that this section would effectively prohibit the use of a medically disqualified (simulated) PIC during SIC training and testing unless the PIC had been fully qualified before serving in this capacity.

The FAA believes that a PIC should be able to function as a required crewmember during simulation testing even though he or she does not hold a valid medical certificate, provided that he or she is otherwise qualified in the flight simulator or was qualified in the aircraft type before losing medical certification. The FAA has determined that there is no safety hazard created by persons operating flight simulators without a valid medical certificate. Accordingly, a new paragraph (b)(3) has been added to allow for use of a PIC meeting the circumstances just discussed, and the section is adopted as otherwise proposed.

Subpart E—Recordkeeping

§ 142.71 Applicability

Proposed subpart E, “Recordkeeping,” prescribed the records that a training center certificate holder must maintain for students who are not aircrew employees of operators under part 121, 125, or 135,

Under this proposed section, the FAA specified that a training record would have to be maintained for each person who is enrolled in a course for which that person is to gain credit toward satisfying any requirement of 14 CFR. Paragraph (d) proposed:

(d) The certificate holder must provide to the Administrator, upon request and at a reasonable time and in a reasonable place, the records required by paragraphs (a) and (b) of this section.

Only one comment was received. The commenter suggested that the only practical place to keep the required records is at the training center where the activity requiring records takes place. It suggested that paragraph (d) be reworded accordingly.

The FAA agrees and has reworded paragraph (d) to require that the records be kept at the training center or satellite training center where the training is conducted, or at another site approved by the Administrator.

The FAA has revised paragraph (c) to provide that records of qualification to act as instructor or evaluator must be maintained for the period of time that the individual is employed.

This section is adopted as otherwise proposed.

Subpart J—Other Approved Courses (Adopted as Subpart F)

§ 142.115 (Adopted as § 142.81) Conduct of Other Approved Courses

The FAA proposed in this section (formerly numbered as § 142.115 and now renumbered to § 142.81) to provide that training centers or training center applicants may apply for approval to conduct training for persons other than pilot crew members. Under the proposal, a course may be approved by the Administrator upon a finding that it provides a curriculum that will achieve a level of competency equal to, or greater than that required by the appropriate part of 14 CFR.

A few commenters stressed that many types of training do not require FAA approval and that subpart J should be deleted.

While it is true that many courses of training do not require FAA approval, there are several that do, and others that may at some future date require such approval. This proposed subpart is intended to allow a training center or a training center applicant to apply for approval of curricula for persons other than air crews.

TDM Group, Inc., described a flight attendant training program that it is undertaking with McDonnell Douglas and Continental Airlines. It remarked that it would like to begin such training under part 142, and encouraged the Administrator to keep and to expand this subpart.

For the reasons discussed, this section is renumbered as § 142.81 instead of § 142.115 and is adopted as proposed. A minor editorial change has been made to proposed paragraph (c) to indicate that an applicant for course approval must comply with the applicable requirements of “subpart A through subpart F of this part” rather than “subpart B or subpart F of this part” as stated in the proposal.

Editorial Corrections

In addition to the revisions discussed above, a number of editorial changes have been made to the text of the final rule including the renumbering of several paragraphs to conform to the current format and style of the regulations.

Harmonization With ICAO, JAA, and JAR

The proposals adopted in this rulemaking have been compared to ICAO Annex I, “Personnel Licensing,” and the JAA/JAR. This rule is compatible with international agreements and parallel regulations, except for the differences which follow:

3. Section 61.129, “(Commercial) Airplane rating: Aeronautical experience,” will allow up to 100 hours of flight time to be simulated flight if accomplished in an approved flight simulator or approved flight training device, and any part of the 190 hour total experience requirement to be simulated flight if the applicant completes an entire approved commercial airplane curriculum at a training center certificated under part 142. ICAO Annex I, Chapter 7, §2.4.1.3 allows credit for only 10 hours of simulated flight experience. It should be noted that the superseded §61.129 allowed credit for 50 hours of simulated flight time toward this rating, which was different from ICAO standards.

The FAA will file a Statement of Differences with ICAO to notify that body of the listed differences.

Paperwork Reduction Act

The reporting and recordkeeping requirements associated with this rule have been approved by the Office of Management and Budget and have been assigned number 2120-0570. Under the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Regulatory Evaluation Summary

Changes to Federal regulations are required to undergo several economic analyses. First, Executive Order 12866 directs each Federal agency to propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic effect of regulatory changes on small entities. Third, the Office of Management and Budget directs agencies to assess the effect of regulatory changes on international trade. With respect to this final rule, the FAA has determined that it: (1) Will generate benefits that justify its costs and is a “significant regulatory action” as defined in the Executive Order; (2) is significant as defined in the Department of Transportation’s Regulatory Policies and Procedures; (3) will not have a significant impact on a substantial number of small entities; and (4) will not constitute a barrier to international trade. Therefore, a full regulatory analysis, which includes the identification and evaluation of cost-reducing alternatives to this rule, has not been prepared. Instead, the agency has prepared a more concise analysis of this final rule in a regulatory evaluation, which is summarized in the following paragraphs.

Benefits

This rule provides benefits by reducing the amount of training aircraft flight hours. The increased substitution of on-the-ground training in flight simulators and flight training devices for in-the-air training in aircraft decreases the risk of fatal aviation accidents while training. The increased substitution also yields cost savings resulting from reduced fuel and oil consumption (energy conservation), as well as reduced required maintenance costs.

Most of the cost savings come from lowered operations costs, resulting from using simulators and training devices instead of aircraft. The estimated savings from existing simulator training centers training pilots under parts 121, 135, and 91 will be \$1.2 billion (\$808 million discounted) over the next 10 years. Furthermore, the final rule will generate additional savings from increased simulator training of general aviation pilots over the next decade that total \$37 million (\$23 million discounted). The total discounted savings attributed to reduced training aircraft flight hours equals \$831 million over the next 10 years.

The FAA also estimates the value of the safety benefit at \$42 million (\$26 million discounted) over the same period. Thus, the total discounted value of part 142 benefits equals \$857 million: \$832 million resulting from greater energy conservation, and \$26 million resulting from reduced training accidents.

costs, and \$824,000 (\$/45,000 discounted) are FAA costs. The balance, \$/31,000 (\$/477,000 discounted) represents FAA monitoring costs over the remaining 8 years.

The FAA expects that the costs of operating simulators for the newly certificated part 142 training centers will continue to be the same as those incurred in operating those same simulators under the rigid standards and requirements imposed by FAA exemptions. The costs of meeting these FAA standards and requirements are captured in this analysis as part of the operating costs of a simulator. This cost has been subtracted from the cost of in-flight training which it replaces, in computing the cost savings from simulator training.

Benefit-Cost Comparison

The preceding sections show that this final rule will result in benefits (\$858 million discounted) that far exceed the costs (\$1.3 million discounted) imposed by the rule. Therefore, the FAA has determined that the simulator final rule is cost beneficial.

The NPRM established the benefit-to-cost ratio as 3:1; the final rule, using a more comprehensive definition of benefits, establishes the benefit-to-cost ratio as approximately 660:1. This is explained, in part, by a reduction in total costs from approximately \$3.5 million, discounted in the NPRM estimate to approximately \$1.3 million, discounted in the final rule estimate. This reduction results from the abandoning of the concept of an FAA national field office to manage certificated simulator training centers.

Most of the increase in the benefit-cost ratio, however, is explained by the substantial increase in cost-savings benefits (\$11 million, discounted NPRM estimate relative to \$858 million discounted final rule estimate) resulting from a more comprehensive definition of benefits. Both the NPRM and the final rule take into account cost-saving benefits attributed to the substitution of simulator hours for training aircraft flight hours as well as to the averting of some aircraft training accidents. In the NPRM, however, the FAA only accounted for cost savings attributed to the incremental hours of simulator training substituted for general aviation pilot training. The final rule assigns cost savings to not only this subgroup, but to all parts 121, 135, and other 91 subgroups that currently provide training under exemption. Finally, the value of life used in the final rule to measure potential training accident fatalities averted was revised from \$1.5 million to \$2.7 million.

International Trade Impact Analysis

The FAA has determined that this rule will not have a significant impact on international trade. The FAA believes that the final rule will not negatively effect operators in the training of foreign citizens who accomplish such pilot training in the United States. Nor will the final rule have a significant impact on international trade should the training occur outside the United States, so long as the use of simulators outside the United States is in compliance with FAA standards and requirements if the intent is for U.S. pilot certification.

Final Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by Federal regulations. The RFA requires agencies to review rules which may have a "significant economic impact on a substantial number of small entities."

The FAA has adopted criteria and guidelines for rulemaking officials to apply when determining whether a proposed or existing rule has any significant economic impact on a substantial number of small entities. Based on these criteria, a small air carrier is one that owns nine or fewer aircraft. A small simulator training school has 10 or fewer employees. A substantial number of small entities is not less than 11 or more than one-third of affected small entities.

The FAA has determined that 37 pilot training schools and 10 contract trainers now train under exemption from specific part 61 requirements. These organizations will incur some costs in applying

Federalism Implications

The regulations announced herein would not have substantial direct effects on the states, on the relationship between the National Government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this rule would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Conclusion

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Analysis, the FAA has determined that this regulation is not major under Executive Order 12286 and that this rule would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. This rule is considered significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). An initial regulatory evaluation of the rule, including a Regulatory Flexibility Determination and Trade Impact Analysis, has been placed in the regulatory docket.

The Amendments

In consideration of the foregoing, the Federal Aviation Administration amends SFAR 58 and parts 1, 61, 91, 121, 125, 135, and 141 of 14 Code of Federal Regulations (14 CFR parts 1, 61, 91, 121, 125, 135, and 141) and adds part 142 (14 CFR part 142) effective August 1, 1996.

The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722.

Amendment 135–64

Training and Qualification Requirements for Check Airmen and Flight Instructors

Adopted: May 30, 1996

Effective: June 17, 1996

(Published in 61 FR 30734, June 17, 1996)

(Corrected in 61 FR 34927, July 3, 1996)

SUMMARY: Some experienced pilots who would otherwise qualify as flight instructors or check airmen but who are not medically eligible to hold the requisite medical certificates, cannot perform flight instructor or check airmen functions even in simulators. This rule establishes separate requirements for check airmen who check only in flight simulators and flight instructors who instruct only in flight simulators. To ensure an equivalent level of safety, the affected check airmen and flight instructors must accomplish the following: Recency of experience requirements; completion of an approved line observation program within each 12-month period; and required training, including recurrent ground and flight training. Additionally, this rule allows check airman and flight instructors to obtain all of their flight training in simulators, as opposed to the current scheme in which initial and transition flight training must include an in-flight element.

EFFECTIVE DATE: This final rule is effective June 17, 1996. See below in the “Modifications” section for the justification for making this rule effective on June 17, 1996, and for a discussion about 9-month compliance dates for two new requirements. Affected parties do not have to comply with the information collection requirements in §§ 121.411(d), 121.412(d), 135.337(d), and 135.338(d) until the Federal Aviation Administration publishes in the *Federal Register* the control number assigned by the Office of Management and Budget (OMB) to these information collection requirements. Publica-

Any person may obtain a copy of this final rule by submitting a request to the Federal Aviation Administration, Office of Rulemaking (ARM-1), 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267-9677. Communications must identify the docket number of this final rule (28471).

Persons interested in being placed on the mailing list for future rules should request from the above office a copy of Advisory Circular No. 11-2A which describes the application procedure.

Background

The requirements for training, checking, and qualification of check airmen and flight instructors who perform training and checking for certificate holders operating under Title 14 of the Code of Federal Regulations parts 121 and 135 appear in §§ 121.411 and 135.337 (check airman and flight instructor qualification) and §§ 121.413 and 135.339 (check airman and flight instructor training and checking).

When parts 121 and 135 were implemented, the primary means of training was in an aircraft. Therefore there was a requirement for check airmen and flight instructors to hold appropriate medical certificates. Even after flight simulators came into use in the late 1970s, check airmen and flight instructors were likely to use both aircraft and flight simulators. Despite significant changes in methods of training, particularly an increased use of flight simulation in training, the sections of parts 121 and 135 mentioned above have not been significantly revised in over 20 years. These sections still focus primarily on check airmen and flight instructors who perform their functions in airplanes.

Today, flight simulators and flight training devices are so sophisticated that they are used to conduct most training and checking with significant benefits to safety. Training and checking in simulators and flight training devices have distinct advantages over training and checking in flight. Flight simulators provide a safe flight training environment, more comprehensive training, and may reduce the number of training and in-service accidents by allowing training for emergency situations that cannot be safely conducted in flight. The use of flight simulators and flight training devices in lieu of aircraft has resulted in a reduction in air traffic congestion, energy use, noise, air pollution and training costs.

Some experienced pilots who would otherwise qualify as flight instructors or check airmen but who are not medically eligible to hold the requisite medical certificates, cannot perform check airmen functions or many flight instructor functions even in simulators. Thus the regulations do not establish separate categories of requirements for check airmen who check only in flight simulators or for flight instructors who instruct only in flight simulators. A number of highly experienced airmen who might serve as flight instructors or check airmen, including former military pilots, former air carrier pilots, and furloughed pilots, as well as other experienced pilots, currently are unable to perform those training and checking functions because they are unable to hold an airman medical certificate.

This rule allows experienced check airmen and flight instructors who are not able to hold a current medical certificate to check or instruct in flight simulators and flight training devices. Under this rule, affected check airmen and flight instructors must meet similar requirements that a pilot flying the line is required to meet, such as initial training, proficiency checks, and competency checks and could use flight simulators to meet these similar requirements. This rule also addresses check airmen in aircraft, check airmen in flight simulators or flight training devices, flight instructors in aircraft, and flight instructors in flight simulators or flight training devices.

The Air Carrier Training Working Group of the Aviation Rulemaking Advisory Committee (ARAC) recommended that the FAA amend its regulations so that airmen who were not eligible to hold medical certificates would nonetheless be eligible to instruct or check pilots and other airmen in simulators. On July 16, 1992, ARAC forwarded draft rule language for the FAA to review. The FAA used ARAC's draft as the basis for developing this rule.

airman and instructor functions in flight simulators and flight training devices are deleted:

- The requirement to hold at least a Class III medical certificate, in current § 121.411(a)(6).
- The requirement to hold a Class I, II, or III medical certificate, in current § 135.337(a).

(3) A flight instructor (simulator) or check airman (simulator) is required to meet recency of experience requirements, in the 12-month period preceding the performance of flight instruction or check airman functions, by flying two flight segments as a required crewmember for the type aircraft involved, if medically qualified and certificated, or by completing an approved line-observation program.

(4) Training requirements for check airmen and flight instructors who serve in training programs under parts 121 and 135 are in §§ 121.413, 121.414, 135.339, and 135.340. This rule changes these requirements in the following ways:

- A new requirement is imposed for check airmen and flight instructors in that they must satisfactorily complete, within the preceding 24 calendar months, an observation check of their check airman or flight instructor functions. This check may be accomplished in a flight simulator or in a flight training device as appropriate.
- Flight instructors are required to have much of the same ground training requirements as check airmen. As a practical matter, ground training for flight instructors and check airmen are the same; however, the current rules are not specific in this area. This change ensures that flight instructors and check airmen receive the same ground training.
- Currently, initial and transitional flight training for check airmen and flight instructors who perform their functions in-flight requires in-flight training and practice. This rule allows this training to take place in simulators or in flight training devices.

These changes allow certain experienced pilots who are unable to meet current medical certificate requirements to be able to check and instruct, but only in flight simulators and flight training devices. To allow this flexibility while maintaining safety, this rule requires flight instructors (simulator) and check airmen (simulator) to meet recency of experience requirements, take observation checks of their check airman/instructor abilities once every 2 years, complete the required recurrent training necessary to serve as a pilot-in-command under parts 121 and 135 or a flight engineer or flight navigator under part 121, and complete required proficiency or competency checks. A detailed section-by-section description of the rule follows.

Section-by-Section Analysis

§ 121.411 Qualifications: Check Airmen (Airplane) and Check Airmen (Simulator)

Current § 121.411(a)(1) requires that a flight instructor or check airman who serves in a training program under part 121, for the particular airplane type involved, hold the airman certificates and ratings that must be held in order to serve as a pilot in command (PIC), a flight engineer, or a flight navigator, as appropriate, in operations under part 121. Current § 121.411(a)(6) requires that a check airman or flight instructor who serves in a training program under part 121 must hold at least a Class III medical certificate. Under current § 121.411(b)(1) a simulator instructor, instructing for a course of training in an airplane simulator as provided in § 121.409(b), must hold an airline transport pilot (ATP) certificate but need not hold an airman medical certificate if only giving proficiency checks as specified in § 121.441 and § 121.409(b). Under the current rules, if a simulator instructor is providing instruction for anything other than a proficiency check (e.g., upgrade training), then he or she must have a medical certificate. (See current § 121.411(a).)

Section 121.411 is revised to change the applicability from check airmen and flight instructors to check airmen (airplane) and check airmen (simulator). Flight instructors are covered under new § 121.412. New paragraph (a) of § 121.411 states that a check airman (airplane) is a person who is qualified and permitted to conduct flight checks and instruction in an airplane, in a flight simulator, or in a flight

New paragraph (c) of § 121.411 establishes the eligibility requirements for check airmen (simulator). These requirements are the same as those for check airmen (airplane) in paragraph (b) with two exceptions. There is no requirement to hold a Class III medical certificate and the recency of experience requirements of § 121.411(b)(6) are not required of part 121 check airmen (simulator). Check airmen (simulator) instead are allowed to meet proposed recency of experience requirements in new paragraph (f), discussed later in this section. Because check airmen (airplane) are able to perform their functions in an airplane as a required flightcrew member, they may meet recency of experience requirements either in an airplane or in a qualified simulator. In addition, current § 121.411(c), which grants training relief to check airmen, flight instructors, and simulator instructors who were designated before December 22, 1969, is deleted since the FAA believes that this provision is obsolete.

New paragraph (d) is added to clarify that the completion of the requirements of (b)(2), (3), and (4) or (c)(2), (3), and (4), whichever is applicable, must be entered into the operator's records for each individual check airman.

New paragraph (e) is added to restate the portion of current § 121.411(a)(6) allowing airmen who have passed their 60th birthday or who do not hold a medical certificate to perform check airmen functions, but, under this paragraph, these airmen may not serve as crewmembers under part 121 operations.

New paragraph (f) is added to offer an alternate method for maintaining recency of experience requirements for check airmen (simulator). Under this rule, check airmen (simulator) must, within the 12-month period preceding the performance of check airman duties, either fly two segments as a required crewmember for the type airplane or satisfactorily complete an approved line-observation program.

New paragraph (g) is added to provide that the recency of experience requirements of paragraph (f) may be completed in the calendar month before or the calendar month after the month in which it is due.

§ 121.412 Qualifications: Flight Instructors (Airplane) and Flight Instructors (Simulator)

The requirements for this section are virtually identical to those in § 121.411 for check airmen. Additionally, this section specifies that an individual who does not hold a medical certificate may not function as a flight instructor in an airplane.

§ 121.413 Initial and Transition Training and Checking Requirements: Check Airmen (Airplane) and Check Airmen (Simulator)

Paragraph (a)(1) maintains the current requirement that, in order to serve as a check airman, a person must have completed initial or transition check airman training. Additionally, paragraph (a)(2) requires an observation check of check airman functions within the preceding 24 calendar months. The observation check may be done in part or in full in an airplane, in a flight simulator, or in a flight training device as appropriate. An FAA inspector or an aircrew designated examiner employed by the operator may administer this observation check. The FAA believes that the observation check requirement better ensures that check airmen maintain their qualifications and their abilities to perform all other duties as appropriate for check airmen.

In paragraph (b) the observation check requirement of paragraph (a)(2) could be accomplished in the month before or the month after the month in which it is due.

Paragraph (c) of this section covers initial ground training requirements for check airmen. Most of the requirements are in current paragraphs (a)(1) through (a)(6) of § 121.413; however, some editorial revisions have been made.

Paragraph (d) covers transition ground training for check airmen. This paragraph separates transition ground training requirements from initial ground training requirements, but imposes no new requirements since transition and ground training are currently required in § 121.413(a)(6).

technological advances in simulation, the FAA believes that the requirements in current § 121.413(c)(1) may be conducted in a simulator. Current paragraph (c) allows the initial and transition flight training in safety measures for emergency situations (current paragraph (c)(2)) and the results of improper or untimely safety measures (current paragraph (c)(3)) to be accomplished in an approved flight simulator, but requires the training requirements of current paragraph (c)(1) to be conducted in flight. In the new rule, the requirements of current paragraph (c)(1) are to be codified in § 121.413(e)(3); however, under new paragraph (f), those requirements need not be accomplished in flight. Those requirements can be accomplished in flight, in a flight simulator, or in a flight training device. The FAA believes that this is appropriate because of the proven effectiveness of flight simulator training. Flight training devices can be used to fulfill the training requirements for the same reasons.

Paragraph (g) is added to establish initial and transition flight training for check airmen (simulator). The requirements include training and practice in the required normal, abnormal, and emergency procedures and training in the operation of flight simulators or flight training devices. Under this paragraph, the training may be conducted in flight training devices or flight simulators as appropriate. The requirements are necessary to establish flight training requirements specifically for check airmen (simulator) who are qualified to conduct flight checks or instruction only in a flight simulator or in a flight training device.

§ 121.414 Initial and Transition Training and Checking Requirements: Flight Instructors (Airplane) and Flight Instructors (Simulator)

The requirements for this section are identical to the provisions in § 121.413 except that the terms and references apply to flight instructors. The required observation check is an observation check of instructor functions, and includes the current requirement for training in teaching methods and procedures except for the holders of a flight instructor certificate.

§ 135.337 Qualifications: Check Airmen (Aircraft) and Check Airmen (Simulator)

Section 135.337(a)(1) currently requires that a flight instructor or check airman serving in a training program under part 135, for the particular aircraft type involved, must hold the airman certificate and ratings that must be held to serve as a PIC in operations under part 135. Section 135.337(a)(5) currently requires that such a flight instructor or check airman hold a Class I or Class II medical certificate required to serve as a PIC in operations under part 135. Under current § 135.337(a)(7), a check airman who serves in an aircraft simulator only must hold a Class III medical certificate. Section 135.337(b) currently requires that a person who serves as a simulator instructor for a course of training in an aircraft simulator must hold at least a commercial pilot certificate.

This rule changes the applicability of this section from check airmen and flight instructors to check airmen (aircraft) and check airmen (simulator). Flight instructors are covered under new § 135.338. Paragraph (a) of § 135.337 states that a check airman (aircraft) is a person who is qualified and permitted to conduct flight checks and instruction in an airplane, in a flight simulator, or in a flight training device for a particular type, class, or category aircraft. A check airman (simulator) is qualified to conduct flight checks only in a flight simulator or in a flight training device for a particular type, class, or category aircraft.

Paragraph (b) contains the eligibility requirements to serve as a check airman (aircraft). With some editorial revisions and an additional requirement to satisfy the recency of experience requirement of § 135.247, the eligibility requirements remain the same as current requirements. The recency provision is added to ensure equivalent recency of experience for those check airmen who may not be flying line operations.

Paragraph (c) of § 135.337 is added to establish the eligibility requirements for check airmen (simulator). These requirements are the same as those for check airmen (aircraft) paragraph (b) with two exceptions. There is no requirement to hold a medical certificate and the recency of experience requirements of new § 135.337(b)(3) are not required of part 135 check airmen (simulator). Check airmen (simulator)

for check airmen (simulator). Check airmen (simulator) must, within the 12-month period preceding the performance of check airman duties, either fly two segments as a required crewmember for the type, class, or category aircraft or satisfactorily complete an approved line-observation program.

Paragraph (g) is added to provide that the recency of experience requirements of paragraph (f) may be completed in the calendar month before or in the calendar month after the month in which it is due.

§ 135.338 Qualifications: Flight Instructors (Aircraft) and Flight Instructors (Simulator)

The requirements for this section are virtually identical to those in § 135.337 for check airmen. Additionally, this section clarifies that an individual who does not hold a medical certificate may not function as a flight instructor in an aircraft.

§ 135.339 Initial and Transition Training and Checking Requirements: Check Airmen (Aircraft) and Check Airmen (Simulator)

Paragraph (a)(1) continues the current requirement that, in order to serve as a check airman, a person must have completed initial or transition check airman training. Additionally, paragraph (a)(2) requires an observation check of check airman functions within the preceding 24 calendar months. The observation check may be done in part or in full in an airplane, flight simulator, or flight training device as appropriate. An FAA inspector or an aircrew designated examiner employed by the operator may administer the observation check. The FAA believes that the observation check requirement better ensures that check airmen maintain their qualifications and their abilities to perform all other duties as appropriate for check airmen.

In paragraph (b) the observation check requirement of paragraph (a)(2) may be accomplished in the month before or the month after the month in which it is due.

Paragraph (c) of this section covers initial ground training requirements for check airmen. Most of the requirements are in current paragraphs (a)(1) through (a)(6) of § 135.339. Some editorial revisions are made in this rule.

Paragraph (d) is added to cover transition ground training for check airmen. This paragraph separates transition ground training requirements from initial ground training requirements, but imposes no new requirements since transition and ground training are currently required in § 135.339(a)(6).

Paragraph (e) is added to cover initial and transition flight training for pilot check airmen (aircraft). Paragraph (e) contains requirements equivalent to those contained in current § 135.339(c), but places greater emphasis on the safety issues required during checking that would take place under actual flight.

Paragraph (f) is added to allow all the flight training provisions of paragraph (e) to be accomplished in full or in part in flight, in flight simulators, or in flight training devices as appropriate. This makes the requirements in current § 135.339(c)(1) less burdensome. Current § 135.339(c) allows the initial and transition flight training in safety measures for emergency situations (current paragraph (c)(2)) and the results of improper or untimely safety measures (current paragraph (c)(3)) to be accomplished in an approved flight simulator, but requires the training requirements of (c)(1) to be conducted in flight. In the new rule, the requirements of current (c)(1) are to be codified in § 135.339(e); however, under new paragraph (f), those requirements need not be accomplished in flight. Those requirements can be accomplished in flight, in a flight simulator, or in a flight training device. The FAA believes that this is appropriate because of the proven effectiveness of flight simulator training. Flight training devices also can be used to fulfill the training requirements for the same reasons.

Paragraph (g) is added to establish initial and transition flight training for check airmen (simulator). The requirements include training and practice in the required normal, abnormal, and emergency procedures and training in the operation of flight simulators or flight training devices. Under this paragraph, the training may be conducted in flight training devices or flight simulators as appropriate. The requirements

On February 22, 1996, the FAA published notice proposing to allow experienced check airmen and flight instructors who are not able to hold a current medical certificate to check or instruct in flight simulators and flight training devices (61 FR 6903). Eleven commenters responded to the proposal. Commenters from FlightSafety International, the National Air Transportation Association, Executive Air Fleet, Inc., Million Air, and McDonnell Douglas support this final rule. Commenters from Petroleum Helicopters, Inc., (PHI), the Allied Pilots Association (APA), the Air Line Pilots Association (ALPA), the Air Transport Association (ATA), Federal Express (FedEx), and Kitty Hawk AirCargo, Inc., (KHAI) made several recommendations, discussed and responded to below.

PHI

PHI states that it generally supports the proposal to change § 135.339(a)(2) to require an observation check of check airmen functions within the preceding 24 calendar months. However, it requests that a statement be added to the rule language that would further clarify who may conduct this observation check other than an FAA inspector. It suggests that this check should be allowed to be conducted by other "designated check airmen."

PHI also generally supports proposed § 135.340 which requires flight instructors to have the same training as check airmen. It suggests adding language to the rule, however, to enable operators to designate limited instructor capability for the purpose of training specific modules, for example, navigation equipment, air data computers, or other specialized equipment or operations.

FAA Response: The FAA agrees, in part, with PHI's comment regarding clarification of who, other than an FAA inspector, may conduct an observation check. To clarify this matter, the FAA has changed "aircrew designated examiner" to "aircrew designated examiner employed by the operator" under §§ 121.413(a)(2) and 135.339(a)(2). This clarifies that such examiners are associated with a particular operator. The FAA does not recognize the term "designated check airmen" as suggested by the commenter. The FAA does not agree that check airmen should conduct observation checks of other check airmen. The FAA has determined that such authority should be exercised only by FAA inspectors or an FAA designated aircrew examiner employed by the operator.

In reference to PHI's comment regarding proposed § 135.340, this rule was not intended to create limited categories of instructors. To create categories of instructors with limited authority is beyond the scope of the NPRM.

APA

APA's comments are described as follows:

The proposal does not address any experience requirements other than the requirement to hold the appropriate airmen certificates and ratings that are required to serve as PIC for the type aircraft involved. Check airmen under the current regulations are usually operationally experienced line pilots who bring extensive line flying background to the training environment. Under the proposed rule, any individual with the proposed airmen certificates and ratings, with some classroom and simulator training, could be a designated check airman. In today's cost conscious training environment, with extensive use of single visit training cycles, the need to use operationally experienced individuals as check airmen is essential to maintain an effective training environment and operational evaluation standard. Operational experience requirements should include a defined number of PIC hours in the type aircraft and regulatory environment (i.e., part 121 or 135) involved and/or prior qualification as a former military, air carrier, or furloughed pilot.

FAA Response: It is possible that, under this rule, any individual with airmen certificates and ratings, with the appropriate classroom and simulator training, could become a designated check airman. Check airmen (simulator), however, must accomplish the following: Complete the operator's course of instruction

under the supervision of a fully qualified PIC check airman (airplane) occupying a pilot station. Thus, even a check airman (simulator's) approval of an airman is indirectly reviewed by a check airman (airplane) during the acquisition of operating experience.

APA also comments that, while the preamble indicates that the recency of experience requirements for check airmen (simulator) and flight instructor (simulator) can be met by flying two flight segments as a required crewmember for the aircraft type involved, the proposed rule language of §§ 121.411(f) and 135.337(f) states that the recency of experience flying requirements of two flight segments can be accomplished in a simulator. APA believes that recency of experience requirements can be met only by operational line flying. The requirements for these flights should include participation/observation in all aspects of the flight, including flight planning, preflight, and post flight functions. ALPA echoed APA's comment regarding § 121.411(f) and FedEx commented that, if proposed §§ 121.411(f) and 121.412(f) are adopted, then similar requirements in appendix H should be deleted.

FAA Response: The FAA has revised the preamble and also proposed §§ 121.411(f), 121.412(f), 135.337(f), and 135.338(f) to clarify that recency of experience requirements can be met either in an airplane or in a simulator (that is, by accomplishing two flight segments or an approved line-observation program). The FAA also has revised all of these sections to clarify the time period in which these flight segments or line-observation programs must be accomplished. For the reasons stated in the FAA's response to APA's comment above, all experience requirements, both initial and recurrent, can be met in an appropriately qualified simulator.

APA also proposes that the new requirement for check airmen and flight instructors to complete an observation check of their performance functions within the preceding 24 months should be increased in frequency to within the preceding 12 months. Flightcrew members are being evaluated at a minimum of at least every 12 months. ALPA echoes APA on this matter. In line with the "one level of safety" concept, according to APA, the rule ultimately adopted should be identical for both part 121 and part 135 operators.

FAA Response: The evaluation timeframe for check airmen and flight instructors will not be less than that required for the individuals they will check or instruct. Check airmen and flight instructors continue to be required to complete appropriate proficiency and competency checks at least once every 12 months. The new requirement that check airmen and flight instructors be observed in the performance of their functions will serve to increase the quality assurance of check airmen and flight instructors.

ALPA

As discussed above, ALPA agrees with APA that the observation checks proposed under §§ 121.413(a)(2) and 121.414(a)(2) should be conducted within 12, rather than 24, months. ALPA and APA further agree that § 121.411(f), as proposed, would require the accomplishment of flying or line observation in a flight simulator. The FAA has responded to these comments above under the discussion of APA's comments.

In addition, ALPA feels that line observation should be required in the airplane on a more frequent basis than proposed. According to ALPA, the requirement in §§ 121.411(f) and 121.412(f) for 12 months should be changed to 3 months. Lastly, ALPA indicates that its comments regarding the proposed part 121 sections are also valid for the proposed part 135 sections.

FAA Response: The FAA agrees that any individual will maintain greater line familiarity with more frequent line observations. Current guidance indicates that two line observations per year are adequate to maintain line familiarity. There is no evidence that safety has been compromised using this current guidance. The FAA believes that annual proficiency or competency checks, and the new 24-month observation requirement coupled with the new annual line observation requirement, exceed the current guidance of two line observations per year.

FAA Response: Because check airmen (airplane) are able to perform their functions in an airplane as a required flightcrew member, they may meet recency of experience requirements either in an airplane or in a qualified simulator. However, if a check airman (airplane) is a required flightcrew member, actual in-flight recency experience is required pursuant to § 121.439(c).

ATA also believes that proposed § 121.412(c)(1) contains a significant change because it requires simulator-only instructors to hold an ATP with a type rating in the airplane in which they will instruct. This change is not explained in the preamble. In a second set of comments which were filed after the comment period closed, ATA stated that many of its member airlines employ hundreds of “simulator only” instructors who do not hold type ratings on the airplane on which they instruct. ATA feels that the impact of this rule would be “severe” on its members. Therefore, ATA recommends the following:

- Allow current “simulator only” instructors to continue instructing without a type rating but require a type rating when an instructor is trained on another airplane type;
- Allow sufficient time (i.e., 3 years) for an operator’s instructor to obtain a type rating and make it clear that a medical certificate is not required to take a flight test in a simulator; or
- Allow a “simulator only” instructor to be issued a type rating upon successful completion of the next recurrent training so that additional training would not have to be provided in preparation for a type rating flight test.

FAA Response: Current § 121.411(b) references simulator instructors. Simulator instructors were individuals who could instruct flightcrew members maintaining airplane qualification but who were unable to instruct those flightcrew members training under an initial, upgrade, or transition training program. These simulator instructors were required to hold an ATP but not a type rating in the type airplane in which they instructed so long as they were only giving proficiency instruction. ATA states that simulator instructors holding an ATP but not a type rating for the airplane in which they instructed could not obtain the required type rating in a level C simulator.

Under this final rule, simulator instructors are included under the category of flight instructors (simulator). Flight instructors (simulator) are required to obtain a type rating for the airplane in which they instruct. Any individual may use an approved simulator to satisfy the practical test requirements for an ATP and associated type rating in accordance with current § 61.157(e). Those individuals who hold an ATP but not the type rating in the airplane in which they provide proficiency instruction will have 9 months to come into compliance with the new requirement by obtaining the aircraft type rating. (See new § 121.412(c)(1)). The new part 121 rule recodifies the existing part 121 requirement that if a simulator instructor is providing initial training, upgrade training, or transitional training, then he or she must have a type rating for the aircraft. Because this is a recodification of the part 121 existing requirement, ongoing compliance is required. In other words, any part 121 flight instructor (simulator) who provides initial, upgrade, or transitional training must continue to have the appropriate type rating for the aircraft involved. In contrast, current § 135.337(b) does not require that a simulator instructor have the appropriate type ratings. Therefore new § 135.338(c)(1) allows flight instructors (simulator) 9 months to come into compliance with the new type rating requirements.

Despite ATA’s assertion, in its untimely comment, that it would take two of its members several years to type rate all of their “simulator only” instructors, ATA did not provide any data to support its claim (e.g., number of persons affected, availability of simulators, etc.) Furthermore, ATA states in its April 19 comment that these instructors have completed aircraft qualification courses and recurrent training. Thus, the time required for these individuals to obtain type ratings will be minimal.

FedEx and ATA

FedEx and ATA recommend deleting current § 121.411(a)(6) and proposed §§ 121.411(b)(5), 121.412(b)(5), 121.411(e) and 121.412(e). According to these commenters, existing part 61 and § 121.383 adequately address medical certificate and age requirements and the FAA should merely reference these

The provisions of § 61.39, which cover flight tests, do not apply to this rulemaking. The medical requirement provision of § 61.39(a)(3) was adopted to ensure that applicants who would take their flight tests in an aircraft hold appropriate medical certificates. There is no requirement for applicants to hold a medical certificate for practical tests conducted in a simulator. Section 61.157 provides for adding type ratings to existing ATP's. The addition of a type rating is accomplished under § 61.157 by a practical test for which no medical certificate is required.

KHAI

KHAI's comments are described as follows:

The recordkeeping requirements of proposed § 121.411(c) and (d), requiring that records for a check airman be maintained as for any other pilot, are redundant and not necessary unless the check airman is not employed as a pilot for the certificate holder.

FAA Response: The FAA agrees with the commenter to the extent that check airmen and flight instructors who are line qualified flightcrew members for the operator need not duplicate the recordkeeping requirements of § 121.411. This final rule recognizes check airmen and instructors who may not be line qualified and requires such individuals to maintain similar training records as those individuals who are line qualified.

Further, according to KHAI, the observation check requirement in proposed § 121.413(a)(2) is burdensome. Since it is now very difficult to schedule an FAA inspector to conduct checks, KHAI believes that this proposed observation check requirement will add an unnecessary burden of additional tracking and scheduling and accomplishes little in the way of verifying the competency of a check airmen.

FAA Response: The FAA places importance on the role of check airmen and flight instructors. The 24-month observation is a new requirement and will serve to increase the quality assurance of check airmen and flight instructors. This final rule permits qualified aircrew designated examiners employed by the operator to conduct the observation. The addition of aircrew designated examiners employed by the operator to conduct the observation check should relieve any unnecessary burden for tracking and scheduling.

The commenter from KHAI states that there is an apparent discrepancy in the initial and transition training requirements for flight instructors as proposed in § 121.414(c)(7) and for check airmen as proposed in § 121.413(c)(6).

FAA Response: Generally, before an individual becomes a check airman, those individuals are first qualified as flight instructors. The training requirements for flight instructors are prerequisite to the training requirements for check airmen.

KHAI comments that, unlike the new § 121.434 regulation, this regulation does not specifically address line check airmen.

FAA Response: This final rule addresses check airmen as a broad category. Other specific categories of check airmen (i.e., line check airmen, proficiency check airmen, etc.) also were not mentioned. It was not the intent of this rule to address specific categories of check airmen beyond check airmen (airplane) and check airmen (simulator).

Lastly, KHAI states that, in the future, more input is needed from part 121 operators before this type of rule is issued, that comment periods should be longer, and that a review of FAA Order 8400.10 should be conducted.

FAA Response: As indicated in the preamble discussion above, the FAA used draft rule language developed by the Air Carrier Training Working Group of ARAC as the basis for developing this proposal. This working group was comprised of many part 121 operators.

by the operator” under proposed §§ 121.413(a)(2) and 135.339(a)(2), to further clarify who, other than an FAA inspector, may conduct an observation check.

- Proposed §§ 121.411(f), 121.412(f), 135.337(f), and 135.338(f) have been revised to make them clear and parallel. These proposed sections contain the qualification requirements for check airmen/simulator and check airmen/airplane.
- Proposed paragraphs (f)(2)(i), (ii), and (iii) have been withdrawn from the qualifications sections for flight instructors (simulator) and check airmen (simulator)—§§ 121.411, 121.412, 135.337, and 135.338. The FAA has decided to maintain the existing regulatory scheme under which operators can seek FAA approval for line observation programs. See Advisory Circular 120–35 as amended.
- Proposed paragraphs (a)(2) of §§ 121.413, 121.414, 135.339, and 135.340 (simulator) have been revised to allow operators until March 1997 (9 months after the publication date of this rule) to come into compliance with the new requirement for operators to conduct observation checks of check airmen and flight instructors once every 24 months.
- Proposed § 121.412(c)(1) has been revised to give part 121 operators and flight instructors (simulator) who currently only provide proficiency instruction, until March 1997 to obtain a type rating if they do not already have one.
- Proposed § 135.338(c)(1) has been revised to give part 135 operators and flight instructors (simulator) until March 1997 to obtain a type rating for the type, class, or category of aircraft in which they instruct if they do not already have one.

Although not in response to comments, the FAA has also added the word “pilot” in front of “flightcrew members” under proposed paragraphs (e) of §§ 121.411 and 121.412. This clarification is necessary because § 121.383(c) (the so-called “Age 60 rule”) only applies to pilot flightcrew members.

With the above modifications being incorporated, this rule is adopted as proposed.

The FAA is making this rule effective on the date of its publication in the *Federal Register* pursuant to 5 U.S.C. §§ 553(d)(1) and 553(d)(3). Because this new rule eliminates certain medical certification requirements, it relieves a restriction that used to exist and thus justifies an immediate change. (See 5 U.S.C. § 553(d)(1)). Because much of the rest of these rules are merely a recodification of long-standing rules, good cause exists for making this recodification effective immediately. (See 5 U.S.C. § 553(d)(3)). Although these rules are effective immediately, the FAA is allowing operators and other affected individuals 9 months to come into compliance with two new requirements: the 24-month observation check and the type rating requirements. (See earlier discussion.)

Paperwork Reduction Act

As stated in the NPRM, the paperwork burden associated with this rule is negligible. The FAA estimated the average burden hour per respondent at 15 seconds per individual every 2 years. As discussed above under “Effective Date,” OMB is reviewing the information collection requirements associated with this rule and will publish a notice informing the public when these information requirements become effective.

International Civil Aviation Organization and Joint Aviation Regulations

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with ICAO Standards and Recommended Practices to the maximum extent practicable. The FAA is not aware of any differences that this rule presents, nor were any differences indicated in any of the comments received.

and will have no impact on international trade. These analyses, available in the docket, are summarized below.

Benefits and Costs

The requirements of this rule will not impose any additional cost on air carriers or other training entities currently providing simulator training. These additional requirements can be incorporated into current industry practice.

In the past, the FAA has issued exemptions to air carriers and to training entities (FlightSafety, Simuflite, etc.), which permit them to use simulators to conduct training and checking for air carrier pilots. However, the FAA imposed certain conditions and limitations in these exemptions. The Agency required that the check airmen and instructors of these entities hold the same airman certificates and ratings and complete the same proficiency checks as required to serve as PIC in air carrier operations. In addition, check airmen and flight instructors that conduct Line-Oriented Flight Training and Line Operational Evaluation in simulators had to be line qualified or line familiar and had to participate in a line observation program. This line observation program has the same requirements as the one that is being adopted for check airmen (simulators) and flight instructors (simulator). Therefore, this program will not impose any additional burden on the aviation industry.

In addition, current FAA policy, as part of Flight Standards Work Program Functions, requires aviation safety inspectors to observe, at least once annually, half of the check airmen and instructors while they perform their duties. A portion of the current observation practice and policy is incorporated into the Code of Federal Regulations by this rulemaking. Since the above policy and practice exceed the requirements, this rulemaking will not impose any additional burden on the airline industry.

The rule affords cost savings to air carriers by allowing them to hire experienced pilots who are not able to hold a current medical certificate to check or instruct in flight simulators and flight training devices if they satisfy the above requirements. These pilots, many of whom are retired, would probably offer their services at lower cost to the airlines than the full-time pilots that currently are performing these functions. Air carriers also will be able to reduce disruption to their operations by contracting with part-time pilots to provide training and checking services, thereby eliminating the need to pull line pilots from their routine duties. The rule also will reduce costs to the industry because it allows all initial and transition flight training for check airmen and instructors to be conducted in simulators or in flight training devices as opposed to the current in-flight requirement. Accordingly, the FAA finds this rule to be cost-beneficial because it does not impose any additional costs on the aviation industry and allows for less costly training of future pilots.

Regulatory Flexibility Determination

The Regulatory Flexibility Act (RFA) of 1980 was enacted by Congress to ensure that small entities are not unnecessarily or disproportionately burdened by Government regulations. The RFA requires a Regulatory Flexibility Analysis if a rule is expected to have a "significant (positive or negative) economic impact on a substantial number of small entities." Based on the standards and thresholds specified in implementing the FAA Order 2100.14A, Regulatory Flexibility Criteria and Guidance, the FAA has determined that the rule will not have a significant impact on a substantial number of small entities.

International Trade Impact Assessment

This rule is expected to have neither an adverse impact on the trade opportunities for U.S. firms doing business abroad nor on foreign firms doing business in the United States. The cost savings that would be realized from the rule are not likely to be significant enough to affect the competitive position of domestic concerns vis-a-vis foreign concerns.

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR parts 121 and 135 effective June 17, 1996.

The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722.

Amendment 135–65

Operating Requirements: Domestic Flag, Supplemental, Commuter, and On-Demand Operations: Corrections and Editorial Changes

Adopted: June 4, 1996

Effective: July 15, 1996

(Published in 61 FR 30432, June 14, 1996)

(Corrected in 61 FR 35628, July 8, 1996)

SUMMARY: This amendment adopts changes that are editorial or typographical in nature in parts 119, 121, and 135. The changes are necessary to correct errors or clarify the intent of the regulations published on December 20, 1995 (60 FR 65832). The changes in this amendment will not impose any additional restrictions on persons affected by these regulations.

FOR FURTHER INFORMATION CONTACT: Linda Williams, Office of Rulemaking (ARM–100); Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591; telephone (202) 267–9685.

SUPPLEMENTARY INFORMATION:

Background

On December 20, 1995, new part 119, Certification: Air Carriers and Commercial Operators, was published in the *Federal Register* (60 FR 65832; December 20, 1995). Part 119 reorganizes, into one part, certification and operations specifications requirements that formerly existed in SFAR 38–2 and in parts 121 and 135. The final rule for new part 119 also deleted or changed certain sections in part 121, subparts A through D, and part 135, subpart A, because the requirements in those subparts have been recodified in part 119. Also on December 20, 1995, a final rule was published that upgrades the training requirements for part 121 operators and requires certain part 135 operators to conduct their training under the requirements of part 121 (60 FR 65940). On January 26, 1996, another final rule was published (61 FR 2608) affecting parts 119, 121, and 135. That amendment made editorial and terminology changes in the remaining subparts of parts 121 and 135 to conform those parts to the language of part 119 and to make certain other changes.

Part 119 was issued as part of a large rulemaking effort to upgrade the requirements that apply to scheduled operations conducted in airplanes that seat 10 to 30 passengers. These operations will in the future be conducted under the requirements of part 121, in accordance with the final rule published on December 20, 1995.

The changes in this final rule are necessary because, as a result of the implementation of part 119 and the beginning of the transition process for commuter operations affected by the final rule published on December 20, 1995, a number of questions of interpretation have been raised and errors in previous final rules have been identified. The changes in this document make necessary corrections and will help to clarify the intent of part 119, the training rule, and the commuter rule.

to make minor editorial changes that help clarify the intent of the rules, or to make editorial changes that make related rules consistent with each other. These types of changes are not individually explained. However, a number of changes are being made that require some explanation, which follows:

1. Section 119.2 and SFAR 38-2 are amended to reinstate certain part 121 and 135 sections that were removed by the commuter rule to make it clear that persons who originally were certificated under SFAR 38-2 must continue to comply with those sections in parts 121 and 135, that have been recodified into part 119, until they receive new operations specifications issued under part 119, or until March 20, 1997, whichever occurs first.

2. New paragraph (j) is added to §121.2 to clarify how crewmembers and certificate holders transitioning to part 121 can obtain credit for training and qualification obtained under part 135.

3. Section 121.404 is amended by correcting the date in the introductory paragraph to March 19, 1998, as was originally published in the Air Carrier and Commercial Operator Training Programs (60 FR 65940, December 20, 1995).

4. Sections 121.721, 121.723, and 135.43 are amended to clarify the status of international crewmember certificates. The FAA no longer issues these certificates because the State Department no longer processes them; however crewmembers who already have been issued these certificates may continue to use them.

5. Sections 121.431 and 135.3 are revised to remove the redundant phrase “. . . or with airplanes having a passenger seating configuration of 10 seats or more.”

Corrections to Tables

Several additional corrections are necessary for Tables 2-4, which were originally published on December 20, 1995 (60 FR 65850, 65888, 65890) and were republished on January 26, 1996 (61 FR 2618, 2619, and 2621), as follows:

1. In Table 2—Comparable Sections in Parts 121 and 135, the word “underwater” in the listing under Subpart K should be “overwater.”

2. In Table 4—Distribution Table for Part 119, correct the listing for §121.5, which was replaced by §119.21(a), not §119.49(a).

Federalism Implications

The regulations do not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among various levels of government. Thus, in accordance with Executive Order 12612, it is determined that such a regulation does not have federalism implications warranting the preparation of a Federalism Assessment.

Paperwork Reduction Act

The information collection requirements associated with this rule have already been approved. There will be a decrease in the paperwork requirements as a result of the elimination of the issuance of the certificate formerly issued to crewmembers engaged in international travel in accordance with §§121.723 and 135.43.

Good Cause Justification for Immediate Adoption

This amendment is needed to make editorial corrections in parts 119, 121, and 135. In view of the need to expedite these changes, and because the amendment is editorial in nature and would impose no additional burden on the public, I find that notice and opportunity for public comment before adopting this amendment is unnecessary.

In consideration of the foregoing, the Federal Aviation Administration amends the Federal Aviation Regulations (14 CFR parts 119, 121, and 135) effective July 15, 1996.

The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722.

§ 135.1 Applicability.

(a) **[[This part prescribes rules governing—**

[(1) The commuter or on-demand operations of each person who holds or is required to hold an Air Carrier Certificate or Operating Certificate under part 119 of this chapter.

[(2) Each person employed or used by a certificate holder conducting operations under this part including the maintenance, preventative maintenance and alteration of an aircraft.

[(3) The transportation of mail by aircraft conducted under a postal service contract awarded under 39 U.S.C. 5402c.

[(4) Each person who applies for provisional approval of an Advanced Qualification Program curriculum, curriculum segment, or portion of a curriculum segment under SFAR No. 58 of 14 CFR part 121 and each person employed or used by an air carrier or commercial operator under this part to perform training, qualification, or evaluation functions under an Advanced Qualification Program under SFAR No. 58 of 14 CFR part 121.

[(5) Nonstop sightseeing flights for compensation or hire that begin and end at the same airport, and are conducted within a 25 statute mile radius of that airport; however, except for operations subject to SFAR 50–2, these operations, when conducted for compensation or hire, must comply only with §§ 135.249, 135.251, 135.253, 135.255, and 135.353.

[(6) Each person who is on board an aircraft being operated under this part.

[(7) Each person who is an applicant for an Air Carrier Certificate or an Operating Certificate under 119 of this chapter, when conducting proving tests.]

(b) **[[Reserved]]**

(c) For the purpose of §§ 135.249, 135.251, 135.253, 135.255, and 135.353, *operator* means any person or entity conducting non-stop sightseeing flights for compensation or hire in an airplane or rotorcraft that begin and end at the same airport

and are conducted within a 25 statute mile radius of that airport.

(d) Notwithstanding the provisions of this part and appendices I and J to part 121 of this chapter, an operator who does not hold a part 121 or part 135 certificate is permitted to use a person who is otherwise authorized to perform aircraft maintenance or preventive maintenance duties and who is not subject to FAA-approved anti-drug and alcohol misuse prevention programs to perform—

(1) Aircraft maintenance or preventive maintenance on the operator's aircraft if the operator would otherwise be required to transport the aircraft more than 50 nautical miles further than the repair point closest to the operator's principal place of operation to obtain these services; or

(2) Emergency repairs on the operator's aircraft if the aircraft cannot be safely operated to a location where an employee subject to FAA-approved programs can perform the repairs.

(Amdt. 135–5, Eff. 7/1/80); (Amdt. 135–7, Eff. 2/1/81); (Amdt. 135–20, Eff. 1/6/87); (Amdt. 135–28, Eff. 12/21/88); (Amdt. 135–32, Eff. 8/18/90); (Amdt. 135–37, Eff. 10/1/90); (Amdt. 135–40, Eff. 10/5/91); (Amdt. 135–48, Eff. 3/17/94); **[(Amdt. 135–58, Eff. 1/19/96)]**

§ 135.2 Compliance schedule for operators that transition to part 121 of this chapter; certain new entrant operators.

(a) *Applicability.* This section applies to the following:

(1) Each certificate holder that was issued an air carrier or operating certificate and operations specifications under the requirements of part 135 of this chapter or under SFAR No. 38–2 of 14 CFR part 121 before January 19, 1996, and that conducts scheduled passenger-carrying operations with:

(i) Nontransport category turbopropeller-powered airplanes type certificated after December 31, 1964, that have a passenger seat configuration of 10–19 seats;

to conduct scheduled passenger-carrying operations in the kinds of airplanes described in paragraphs (a)(1)(i), (a)(1)(ii), or paragraph (a)(1)(iii) of this section.

(b) *Obtaining operations specifications.* A certificate holder described in paragraph (a)(1) of this section may not, after March 20, 1997, operate an airplane described in paragraphs (a)(1)(i), (a)(1)(ii), or (a)(1)(iii) of this section in scheduled passenger-carrying operations, unless it obtains operations specifications to conduct its scheduled operations under part 121 of this chapter on or before March 20, 1997.

(c) *Regular or accelerated compliance.* [Except as provided in paragraphs (d) and (e) of this section, each certificate holder described in paragraph (a)(1) of this section shall comply with each applicable requirement of part 121 of this chapter on and after March 20, 1997, or on and after the date on which the certificate holder is issued operations specifications under this part, whichever occurs first.] Except as provided in paragraphs (d) and (e) of this section, each person described in paragraph (a)(2) of this section shall comply with each applicable requirement of part 121 of this chapter on and after the date on which that person is issued a certificate and operations specifications under part 121 of this chapter.

(d) *Delayed compliance dates.* Unless paragraph (e) of this section specifies an earlier compliance date, no certificate holder that is covered by paragraph (a) of this section may operate an airplane in 14 CFR part 121 operations on or after a date listed in this paragraph unless that airplane meets the applicable requirement of this paragraph:

(1) [Nontransport category turbopropeller-powered airplanes type certificated after December 31, 1964, that have a passenger seat configuration of 10–19 seats. No certificate holder may operate under this part an airplane that is described in paragraph (a)(1)(i) of this section on or after a date listed in paragraph (d)(1) of this section unless that airplane meets the applicable requirement listed in paragraph (d)(1) of this section:]

(i) December 20, 1997:

means.

(ii) December 20, 1999: Section 121.342, Pitot heat indication system.

(iii) December 20, 2010:

(A) For airplanes described in § 121.157(f), the Airplane Performance Operating Limitations in §§ 121.189 through 121.197.

(B) Section 121.161(b), Ditching approval.

(C) Section 121.305(j), Third attitude indicator.

(D) Section 121.312(c), Passenger seat cushion flammability.

(2) *Transport category turbopropeller-powered airplanes that have a passenger seat configuration of 20–30 seats.* [No certificate holder may operate under this part an airplane that is described in paragraph (a)(1)(ii) of this section on or after a date listed in paragraph (d)(2) of this section unless that airplane meets the applicable requirement listed in paragraph (d)(2) of this section:]

(i) December 20, 1997:

(A) Section 121.308, Lavatory fire protection.

(B) Section 121.337(b)(8) and (9), Protective breathing equipment.

(C) Section 121.340, Emergency flotation means.

(ii) December 20, 2010: Section 121.305(j), Third attitude indicator.

(e) *Newly manufactured airplanes.* No certificate holder that is described in paragraph (a) of this section may operate under part 121 of this chapter an airplane manufactured on or after a date listed in this paragraph unless that airplane meets the applicable requirement listed in this paragraph.

(1) For nontransport category turbopropeller-powered airplanes type certificated after December 31, 1964, that have a passenger seat configuration of 10–19 seats:

(i) Manufactured on or after March 20, 1997:

(A) Section 121.305(j), Third attitude indicator.

ered airplanes that have a passenger seat configuration of 20–30 seats manufactured on or after March 20, 1997: Section 121.305(j), Third attitude indicator.

(f) *New type certification requirements.* No person may operate an airplane for which the application for a type certificate was filed after March 29, 1995, in 14 CFR part 121 operations unless that airplane is type certificated under part 25 of this chapter.

(g) *Transition plan.* Before March 19, 1996, each certificate holder described in paragraph (a)(1) of this section must submit to the FAA a transition plan (containing a calendar of events) for moving from conducting its scheduled operations under the commuter requirements of part 135 of this chapter to the requirements for domestic or flag operations under part 121 of this chapter. Each transition plan must contain details on the following:

(1) Plans for obtaining new operations specifications authorizing domestic or flag operations;

(2) Plans for being in compliance with the applicable requirements of part 121 of this chapter on or before March 20, 1997; and

(3) Plans for complying with the compliance date schedules contained in paragraphs (d) and (e) of this section.

(Amdt. 135–58, Eff. 1/19/96); [(Amdt. 135–65, Eff. 7/15/96)]

§ 135.3 Rules applicable to operations subject to this part.

(a) Each person operating an aircraft in operations under this part shall—

(1) While operating inside the United States, comply with the applicable rules of this chapter; and

(2) While operating outside the United States, comply with Annex 2, Rules of the Air, to the Convention on International Civil Aviation or the regulations of any foreign country, whichever applies, and with any rules of parts 61 and 91 of this chapter and this part that are more restrictive than that Annex or those regulations and

this chapter instead of the requirements of subparts E, G, and H of this part.] Each affected certificate holder must submit to the Administrator and obtain approval of a transition plan (containing a calendar of events) for moving from its present part 135 training, checking, testing, and qualification requirements to the requirements of part 121 of this chapter. Each transition plan must be submitted by March 19, 1996, and must contain details on how the certificate holder plans to be in compliance with subparts N and O of part 121 on or before March 19, 1997.

(c) If authorized by the Administrator upon application, each certificate holder that conducts operations under this part to which paragraph (b) of this section does not apply, may comply with the applicable sections of subparts N and O of part 121 instead of the requirements of subparts E, G, and H of this part, except that those authorized certificate holders may choose to comply with the operating experience requirements of § 135.244, instead of the requirements of § 121.434 of this chapter.

(Amdt. 135–32, Eff. 8/18/90); (Amdt. 135–57, Eff. 3/19/96); [(Amdt. 135–65, Eff. 7/15/96)]

§ 135.5 [Removed]

[(Amdt. 135–58, Eff. 1/19/96)]

§ 135.7 Applicability of rules to unauthorized operators.

The rules in this part which apply to a person certificated under [part 119 of this chapter] also apply to a person who engages in any operation governed by this part without an appropriate certificate and operations specifications required by [part 119 of this chapter].

[(Amdt. 135–58, Eff. 1/19/96)]

§ 135.9 [Removed]

[(Amdt. 135–58, Eff. 1/19/96)]

(Amdt. 135-24, Eff. 8/25/87); [(Amdt. 135-58, Eff. 1/19/96)]

[§ 135.12 Previously trained crewmembers.]

[A certificate holder may use a crewmember who received the certificate holder's training in accordance with subparts E, G, and H of this part before March 19, 1997, without complying with initial training and qualification requirements of subparts N and O of part 121 of this chapter. The crewmember must comply with the applicable recurrent training requirements of part 121 of this chapter.] [(Amdt. 135-57, Eff. 3/19/96)]

§ 135.13 [Removed]

[(Amdt. 135-58, Eff. 1/19/96)]

§ 135.15 [Removed]

[(Amdt. 135-58, Eff. 1/19/96)]

§ 135.17 [Removed]

(Amdt. 135-6, Eff. 9/10/80) (Amdt. 135-33, Eff. 10/25/89); [(Amdt. 135-58, Eff. 1/19/96)]

§ 135.19 Emergency operations.

(a) In an emergency involving the safety of persons or property, the certificate holder may deviate from the rules of this part relating to aircraft and equipment and weather minimums to the extent required to meet that emergency.

(b) In an emergency involving the safety of persons or property, the pilot in command may deviate from the rules of this part to the extent required to meet that emergency.

(c) Each person who, under the authority of this section, deviates from a rule of this part shall, within 10 days, excluding Saturdays, Sundays, and Federal holidays, after the deviation, send to the FAA Flight Standards District Office charged with the overall inspection of the certificate holder a complete report of the aircraft operation involved, including a description of the deviation and reasons for it.

authorize a deviation from this paragraph if the Administrator finds that, because of the limited size of the operation, all or part of the manual is not necessary for guidance of flight, ground, or maintenance personnel.

(b) Each certificate holder shall maintain at least one copy of the manual at its [principal base of operations].

(c) The manual must not be contrary to any applicable Federal regulations, foreign regulation applicable to the certificate holder's operations in foreign countries, or the certificate holder's operating certificate or operations specifications.

(d) A copy of the manual, or appropriate portions of the manual (and changes and additions) shall be made available to maintenance and ground operations personnel by the certificate holder and furnished to—

(1) Its flight crewmembers; and

(2) Representatives of the Administrator assigned to the certificate holder.

(e) Each employee of the certificate holder to whom a manual or appropriate portions of it are furnished under paragraph (d)(1) of this section shall keep it up to date with the changes and additions furnished to them.

(f) Except as provided in paragraph (g) of this section, each certificate holder shall carry appropriate parts of the manual on each aircraft when away from the [principal base of operations]. The appropriate parts must be available for use by ground or flight personnel.

(g) If a certificate holder conducts aircraft inspections or maintenance at specified stations where it keeps the approved inspection program manual, it is not required to carry the manual aboard the aircraft en route to those stations.

(Amdt. 135-18, Eff. 8/2/82); [(Amdt. 135-58, Eff. 1/19/96)]

§ 135.23 Manual contents.

Each manual shall have the date of the last revision on each revised page. The manual must include—

engine aircraft, for determining compliance with § 135.185;

(c) Copies of the certificate holder's operations specifications or appropriate extracted information, including area of operations authorized, category and class of aircraft authorized, crew complements, and types of operations authorized;

(d) Procedures for complying with accident notification requirements.

(e) Procedures for ensuring that the pilot in command knows that required airworthiness inspections have been made and that the aircraft has been approved for return to service in compliance with applicable maintenance requirements;

(f) Procedures for reporting and recording mechanical irregularities that come to the attention of the pilot in command before, during, and after completion of a flight;

(g) Procedures to be followed by the pilot in command for determining that mechanical irregularities or defects reported for previous flights have been corrected or that correction has been deferred;

(h) Procedures to be followed by the pilot in command to obtain maintenance, preventive maintenance, and servicing of the aircraft at a place where previous arrangements have not been made by the operator, when the pilot is authorized to so act for the operator;

(i) Procedures under § 135.179 for the release for, or continuation of, flight if any item of equipment required for the particular type of operation becomes inoperative or unserviceable en route;

(j) Procedures for refueling aircraft, eliminating fuel contamination, protecting from fire (including electrostatic protection), and supervising and protecting passengers during refueling;

(k) Procedures to be followed by the pilot in command in the briefing under § 135.117;

(l) Flight locating procedures, when applicable;

(m) Procedures for ensuring compliance with emergency procedures, including a list of the functions assigned each category of required crewmembers in connection with an emergency and emergency evacuation duties under § 135.123;

(1) Accepting shipment of hazardous material required by Title 49 CFR, to assure proper packaging, marking, labeling, shipping documents, compatibility of articles, and instructions on their loading, storage, and handling;

(2) Notification and reporting hazardous material incidents as required by Title 49 CFR; and

(3) Notification of the pilot in command when there are hazardous materials aboard, as required by Title 49 CFR;

(q) Procedures for the evacuation of persons who may need the assistance of another person to move expeditiously to an exit if an emergency occurs; and

(r) Other procedures and policy instructions regarding the certificate holder's operations, that are issued by the certificate holder.

(Amdt. 135-20, Eff. 1/6/87); [(Amdt. 135-58, Eff. 1/19/96)]

§ 135.25 Aircraft requirements.

(a) Except as provided in paragraph (d) of this section, no certificate holder may operate an aircraft under this part unless that aircraft—

(1) Is registered as a civil aircraft of the United States and carries an appropriate and current airworthiness certificate issued under this chapter; and

(2) Is in an airworthy condition and meets the applicable airworthiness requirements of this chapter, including those relating to identification and equipment.

(b) Each certificate holder must have the exclusive use of at least one aircraft that meets the requirements for at least one kind of operation authorized in the certificate holder's operations specifications. In addition, for each kind of operation for which the certificate holder does not have the exclusive use of an aircraft, the certificate holder must have available for use under a written agreement (including arrangements for performing required maintenance) at least one aircraft that meets the requirements for that kind of operation. However, this paragraph does not prohibit the operator from using or authorizing the use of the

required maintenance), in effect when the aircraft is operated, giving the person that possession, control, and use for at least 6 consecutive months.

(d) A certificate holder may operate in common carriage, and for the carriage of mail, a civil aircraft which is leased or chartered to it without crew and is registered in a country which is a party to the Convention on International Civil Aviation if—

(1) The aircraft carries an appropriate airworthiness certificate issued by the country of registration and meets the registration and identification requirements of that country;

(2) The aircraft is of a type design which is approved under a U.S. type certificate and complies with all of the requirements of this chapter (14 CFR Chapter 1) that would be applicable to that aircraft were it registered in the United States, including the requirements which must be met for issuance of a U.S. standard airworthiness certificate (including type design conformity, condition for safe operation, and the noise, fuel venting, and engine emission requirements of this chapter), except that a U.S. registration certificate and a U.S. standard airworthiness certificate will not be issued for the aircraft;

(3) The aircraft is operated by U.S.-certificated airmen employed by the certificate holder; and

(4) The certificate holder files a copy of the aircraft lease or charter agreement with the FAA Aircraft Registry, Department of Transportation, 6400 South MacArthur Boulevard, Oklahoma City, OK (Mailing address: P.O. Box 25504, Oklahoma City, OK 73125).

(Amdt. 135-8, Eff. 10/16/80)

§ 135.27 [Removed]

[(Amdt. 135-58, Eff. 1/19/96)]

§ 135.29 [Removed]

[(Amdt. 135-58, Eff. 1/19/96)]

[(Amdt. 135-58, Eff. 1/19/96)]

§ 135.37 [Removed]

(Amdt 135-18, Eff. 8/2/82); [(Amdt. 135-58, Eff. 1/19/96)]

§ 135.39 [Removed]

(Amdt 135-6, Eff. 9/10/80); (Amdt. 135-18, Eff. 8/2/82); (Amdt 135-20, Eff. 1/6/87); (Amdt. 135-33, Eff. 10/25/89); [(Amdt. 135-58, Eff. 1/19/96)]

§ 135.41 Carriage of narcotic drugs, marijuana, and depressant or stimulant drugs or substances.

[(If the holder of a certificate operating under this part allows any aircraft owned or leased by that holder to be engaged in any operation that the certificate holder knows to be in violation of § 91.19(a) of this chapter, that operation is a basis for suspending or revoking the certificate.)]

(Amdt 135-32, Eff. 8/18/90); [(Amdt. 135-58, Eff. 1/19/96)]

§ 135.43 [Crewmember certificates: International operations.]

(a) [This section describes the certificates that were issued to United States citizens who were employed by air carriers at the time of issuance as flight crewmembers on United States registered aircraft engaged in international air commerce. The purpose of the certificate is to facilitate the entry and clearance of those crewmembers into ICAO contracting states. They were issued under Annex 9, as amended, to the Convention on International Civil Aviation.

(b) [The holder of a certificate issued under this section, or the air carrier by whom the holder is employed, shall surrender the certificate for cancellation at the nearest FAA Flight Standards District Office at the termination of the holder's employment with that air carrier.]

(Amdt. 135-58, Eff. 1/19/96); [(Amdt. 135-65, Eff. 7/15/96)]

This subpart prescribes rules, in addition to those in part 91 of this chapter, that apply to operations under this part.

§ 135.63 Recordkeeping requirements.

(a) Each certificate holder shall keep at its principal business office or at other places approved by the Administrator, and shall make available for inspection by the Administrator the following—

(1) The certificate holder's operating certificate;

(2) The certificate holder's operations specifications;

(3) [A current list of the aircraft used or available for use in operations under this part and the operations for which each is equipped;]

(4) An individual record of each pilot used in operations under this part, including the following information:

(i) The full name of the pilot.

(ii) The pilot certificate (by type and number) and ratings that the pilot holds.

(iii) The pilot's aeronautical experience in sufficient detail to determine the pilot's qualifications to pilot aircraft in operation under this part.

(iv) The pilot's current duties and the date of the pilot's assignment to those duties.

(v) The effective date and class of the medical certificate that the pilot holds.

(vi) The date and result of each of the initial and recurrent competency tests and proficiency and route checks required by this part and the type of aircraft flown during that test or check.

(vii) The pilot's flight time in sufficient detail to determine compliance with the flight time limitations of this part.

(viii) The pilot's check pilot authorization, if any.

(ix) Any reaction taken concerning the pilot's release from employment for physical or professional disqualification.

phase and each recurrent phase of the training required by this part; and

[(5) An individual record for each flight attendant who is required under this part, maintained in sufficient detail to determine compliance with the applicable portions of § 135.273 of this part.]

(b) [Each certificate holder must keep each record required by paragraph (a)(3) of this section for at least 6 months, and must keep each record required by paragraphs (a)(4) and (a)(5) of this section for at least 12 months.]

(c) For multiengine aircraft, each certificate holder is responsible for the preparation and accuracy of a load manifest in duplicate containing information concerning the loading of the aircraft. The manifest must be prepared before each takeoff and must include—

(1) The number of passengers;

(2) The total weight of the loaded aircraft;

(3) The maximum allowable takeoff weight for that flight;

(4) The center of gravity limits;

(5) The center of gravity of the loaded aircraft, except that the actual center of gravity need not be computed if the aircraft is loaded according to a loading schedule or other approved method that ensures that the center of gravity of the loaded aircraft is within approved limits. In those cases, an entry shall be made on the manifest indicating that the center of gravity is within limits according to a loading schedule or other approved method;

(6) The registration number of the aircraft or flight number;

(7) The origin and destination; and

(8) Identification of crewmembers and their crew position assignments.

(d) The pilot in command of the aircraft for which a load manifest must be prepared shall carry a copy of the completed load manifest in the aircraft to its destination. The certificate holder shall keep copies of completed load manifest for at least 30 days at its principal operations base, or at

state operations for compensation or hire shall keep a copy of each written contract under which it provides services as a commercial operator for a period of at least one year after the date of execution of the contract. In the case of an oral contract, it shall keep a memorandum stating its elements, and of any amendments to it, for a period of at least one year after the execution of that contract or change.

(b) Each commercial operator who conducts intrastate operations for compensation or hire shall submit a financial report for the first 6 months of each fiscal year and another financial report for each complete fiscal year. If that person's operating certificate is suspended for more than 29 days, that person shall submit a financial report as of the last day of the month in which the suspension is terminated. The report required to be submitted by this section shall be submitted within 60 days of the last day of the period covered by the report and must include—

(1) A balance sheet that shows assets, liabilities, and net worth on the last day of the reporting period;

(2) **【The information required by § 119.35(g)(2), (g)(7), and (g)(8) of this chapter;】**

(3) An itemization of claims in litigation against the applicant, if any, as of the last day of the period covered by the report;

(4) A profit and loss statement with the separation of items relating to the applicant's commercial operator activities from his other business activities, if any; and

(5) A list of each contract that gave rise to operating income on the profit and loss statement, including the names and addresses of the contracting parties and the nature, scope, date, and duration of each contract.

(Amdt. 135-58, Eff. 1/19/96); **【(Amdt. 135-65, Eff. 7/15/96)】**

§ 135.65 Reporting mechanical irregularities.

(a) Each certificate holder shall provide an aircraft maintenance log to be carried on board each

preceding flight.

(c) Each person who takes corrective action or defers action concerning a reported or observed failure or malfunction of an airframe, powerplant, propeller, rotor, or appliance, shall record the action taken in the aircraft maintenance log under the applicable maintenance requirements of this chapter.

(d) Each certificate holder shall establish a procedure for keeping copies of the aircraft maintenance log required by this section in the aircraft for access by appropriate personnel and shall include that procedure in the manual required by § 135.21.

§ 135.67 Reporting potentially hazardous meteorological conditions and irregularities of communications or navigation facilities.

Whenever a pilot encounters a potentially hazardous meteorological condition or an irregularity in a ground communications or navigational facility in flight, the knowledge of which the pilot considers essential to the safety of other flights, the pilot shall notify an appropriate ground radio station as soon as practicable.

(Amdt. 135-1, Eff. 5/7/79)

§ 135.69 Restriction or suspension of operations: Continuation of flight in an emergency.

(a) During operations under this part, if a certificate holder or pilot in command knows of conditions, including airport and runway conditions, that are a hazard to safe operations, the certificate holder or pilot in command, as the case may be, shall restrict or suspend operations as necessary until those conditions are corrected.

(b) No pilot in command may allow a flight to continue toward any airport of intended landing under the conditions set forth in paragraph (a) of this section, unless in the opinion of the pilot in command, the conditions that are a hazard to safe operations may reasonably be expected to be corrected by the estimated time of arrival or, unless there is no safer procedure. In the latter event,

made.

(Amdt. 135-32, Eff. 8/18/90)

§ 135.73 Inspections and tests.

Each certificate holder and each person employed by the certificate holder shall allow the Administrator, at any time or place, to make inspections or tests (including en route inspections) to determine the holder's compliance with the Federal Aviation Act of 1958, applicable regulations, and the certificate holder's operating certificate, and operations specifications.

§ 135.75 Inspectors credentials: Admission to pilots' compartment: Forward observer's seat.

(a) Whenever, in performing the duties of conducting an inspection, an FAA inspector presents an Aviation Safety Inspector credential, FAA Form 110A, to the pilot in command of an aircraft operated by the certificate holder, the inspector must be given free and uninterrupted access to the pilot compartment of that aircraft. However, this paragraph does not limit the emergency authority of the pilot in command to exclude any person from the pilot compartment in the interest of safety.

(b) A forward observer's seat on the flight deck, or forward passenger seat with headset or speaker must be provided for use by the Administrator while conducting en route inspections. The suitability of the location of the seat and the headset or speaker for use in conducting en route inspections is determined by the Administrator.

§ 135.77 Responsibility for operational control.

Each certificate holder is responsible for operational control and shall list, in the manual required by § 135.21, the name and title of each person authorized by it to exercise operational control.

is overdue or missing; and

(3) Provide the certificate holder with the location, date, and estimated time for reestablishing radio or telephone communications, if the flight will operate in an area where communications cannot be maintained.

(b) Flight locating information shall be retained at the certificate holder's principal place of business, or at other places designated by the certificate holder in the flight locating procedures, until the completion of the flight.

(c) Each certificate holder shall furnish the representative of the Administrator assigned to it with a copy of its flight locating procedures and any changes or additions, unless those procedures are included in a manual required under this part.

§ 135.81 Informing personnel of operational information and appropriate changes.

Each certificate holder shall inform each person in its employment of the operations specifications that apply to that person's duties and responsibilities and shall make available to each pilot in the certificate holder's employ the following materials in current form:

(a) Airman's Information Manual (Alaska Supplement in Alaska and Pacific Chart Supplement in Pacific-Asia Regions) or a commercial publication that contains the same information.

(b) This part and part 91 of this chapter.

(c) Aircraft Equipment Manuals, and Aircraft Flight Manual or equivalent.

(d) For foreign operations, the International Flight Information Manual or a commercial publication that contains the same information concerning the pertinent operational and entry requirements of the foreign country or countries involved.

§ 135.83 Operating information required.

(a) The operator of an aircraft must provide the following materials, in current and appropriate form,

tional en route, terminal area, and approach and letdown chart.

(5) For multiengine aircraft, one-engine-inoperative climb performance data and if the aircraft is approved for use in IFR or over-the-top operations, that data must be sufficient to enable the pilot to determine compliance with § 135.181(a)(2).

(b) Each cockpit checklist required by paragraph (a)(1) of this section must contain the following procedures:

- (1) Before starting engines;
- (2) Before takeoff;
- (3) Cruise;
- (4) Before landing;
- (5) After landing;
- (6) Stopping engines.

(c) Each emergency cockpit checklist required by paragraph (a)(2) of this section must contain the following procedures as appropriate:

- (1) Emergency operation of fuel, hydraulic, electrical, and mechanical systems.
- (2) Emergency operation of instruments and controls.
- (3) Engine inoperative procedures.
- (4) Any other emergency procedures necessary for safety.

§ 135.85 Carriage of persons without compliance with the passenger-carrying provisions of this part.

The following persons may be carried aboard an aircraft without complying with the passenger-carrying requirements of this part:

- (a) A crewmember or other employee of the certificate holder.
- (b) A person necessary for the safe handling of animals on the aircraft.
- (c) A person necessary for the safe handling of hazardous materials (as defined in Subchapter C of Title 49 CFR).
- (d) A person performing duty as a security or honor guard accompanying a shipment made by or under the authority of the U.S. Government.

operation of the certificate holder.

§ 135.87 Carriage of cargo including carry-on baggage.

No person may carry cargo, including carry-on baggage, in or on any aircraft unless—

- (a) It is carried in an approved cargo rack, bin, or compartment installed in or on the aircraft;
- (b) It is secured by an approved means; or
- (c) It is carried in accordance with each of the following:

(1) For cargo, it is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions, or for carry-on baggage, it is restrained so as to prevent its movement during air turbulence.

(2) It is packaged or covered to avoid possible injury to occupants.

(3) It does not impose any load on seats or on the floor structure that exceeds the load limitation for those components.

(4) It is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided.

(5) It is not carried directly above seated occupants.

(6) It is stowed in compliance with this section for takeoff and landing.

(7) For cargo only operations, paragraph (c)(4) of this section does not apply if the cargo is loaded so that at least one emergency or regular exit is available to provide all occupants of the aircraft a means of unobstructed exit from the aircraft if an emergency occurs.

(d) Each passenger seat under which baggage is stowed shall be fitted with a means to prevent articles of baggage stowed under it from sliding under crash impacts severe enough to induce the

§ 135.89 Pilot requirements: Use of oxygen.

(a) *Unpressurized aircraft.* Each pilot of an unpressurized aircraft shall use oxygen continuously when flying

(1) At altitudes above 10,000 feet through 12,000 feet MSL for that part of the flight at those altitudes that is of more than 30 minutes duration; and

(2) Above 12,000 feet MSL.

(b) *Pressurized aircraft.*

(1) Whenever a pressurized aircraft is operated with the cabin pressure altitude more than 10,000 feet MSL, each pilot shall comply with paragraph (a) of this section.

(2) Whenever a pressurized aircraft is operated at altitudes above 25,000 feet through 35,000 feet MSL unless each pilot has an approved quick-donning type oxygen mask—

(i) At least one pilot at the controls shall wear, secured and sealed, an oxygen mask that either supplies oxygen at all times or automatically supplies oxygen whenever the cabin pressure altitude exceeds 12,000 feet MSL; and

(ii) During that flight, each other pilot on flight deck duty shall have an oxygen mask, connected to an oxygen supply, located so as to allow immediate placing of the mask on the pilot's face sealed and secured for use.

(3) Whenever a pressurized aircraft is operated at altitudes above 35,000 feet MSL, at least one pilot at the controls shall wear, secured and sealed, an oxygen mask required by paragraph (2)(i) of this paragraph.

(4) If one pilot leaves a pilot duty station of an aircraft when operating at altitudes above 25,000 feet MSL, the remaining pilot at the controls shall put on and use an approved oxygen mask until the other pilot returns to the pilot duty station of the aircraft.

the following conditions are met—

(1) The equipment must be—

(i) Of an approved type or in conformity with the manufacturing, packaging, marking, labeling and maintenance requirements of Title 49 CFR parts 171, 172, and 173, except § 173.24(a)(1);

(ii) When owned by the certificate holder, maintained under the certificate holder's approved maintenance program;

(iii) Free of flammable contaminants on all exterior surfaces; and

(iv) Appropriately secured.

(2) When the oxygen is stored in the form of a liquid, the equipment must have been under the certificate holder's approved maintenance program since its purchase new or since the storage container was last purged.

(3) When the oxygen is stored in the form of a compressed gas as defined in Title 49 CFR § 173.300(a)—

(i) When owned by the certificate holder, it must be maintained under its approved maintenance program; and

(ii) The pressure in any oxygen cylinder must not exceed the rated cylinder pressure.

(4) The pilot in command must be advised when the equipment is on board, and when it is intended to be used.

(5) The equipment must be stowed, and each person using the equipment must be seated, so as not to restrict access to or use of any required emergency or regular exit, or of the aisle in the passenger compartment.

(b) No person may smoke and no certificate holder may allow any person to smoke within 10 feet of oxygen storage and dispensing equipment carried under paragraph (a) of this section.

(c) No certificate holder may allow any person other than a person trained in the use of medical oxygen equipment to connect or disconnect oxygen bottles or any other ancillary component while any passenger is aboard the aircraft.

(e) Each certificate holder who, under the authority of paragraph (d) of this section, deviates from paragraph (a)(1)(i) of this section under a medical emergency shall, within 10 days, excluding Saturdays, Sundays, and Federal holidays, after the deviation, send to the [certificate-holding district office] a complete report of the operation involved, including a description of the deviation and the reasons for it.

[(Amdt. 135-60, Eff. 2/26/96)]

§ 135.93 Autopilot: Minimum altitudes for use.

(a) Except as provided in paragraphs (b), (c), and (d) of this section, no person may use an autopilot at an altitude above the terrain which is less than 500 feet or less than twice the maximum altitude loss specified in the approved Aircraft Flight Manual or equivalent for a malfunction of the autopilot, whichever is higher.

(b) When using an instrument approach facility other than ILS, no person may use an autopilot at an altitude above the terrain that is less than 50 feet below the approved minimum descent altitude for that procedure, or less than twice the maximum loss specified in the approved Airplane Flight Manual or equivalent for a malfunction of the autopilot under approach conditions, whichever is higher.

(c) For ILS approaches, when reported weather conditions are less than the basic weather conditions in § 91.155 of this chapter, no person may use an autopilot with an approach coupler at an altitude above the terrain that is less than 50 feet above the terrain, or the maximum altitude loss specified in the approved Airplane Flight Manual or equivalent for the malfunction of the autopilot with approach coupler, whichever is higher.

(d) Without regard to paragraph (a), (b), or (c) of this section, the Administrator may issue operations specifications to allow the use, to touchdown, of an approved flight control guidance system with automatic capability, if—

(1) The system does not contain any altitude loss (above zero) specified in the approved Air-

§ 135.95 Airmen: Limitations on use of services.

No certificate holder may use the services of any person as a airman unless the person performing those services—

(a) Holds an appropriate and current airman certificate; and

(b) Is qualified, under this chapter, for the operation for which the person is to be used.

§ 135.97 Aircraft and facilities for recent flight experience.

Each certificate holder shall provide aircraft and facilities to enable each of its pilots to maintain and demonstrate the pilot's ability to conduct all operations for which the pilot is authorized.

§ 135.99 Composition of flight crew.

(a) No certificate holder may operate an aircraft with less than the minimum flight crew specified in the aircraft operating limitations or the Aircraft Flight Manual for that aircraft and required by this part for the kind of operation being conducted.

(b) No certificate holder may operate an aircraft without a second in command if that aircraft has a passenger seating configuration, excluding any pilot seat, of ten seats or more.

§ 135.100 Flight crewmember duties.

(a) No certificate holder shall require, nor may any flight crewmember perform, any duties during a critical phase of flight except those duties required for the safe operation of the aircraft. Duties such as company required calls made for such nonsafety related purposes as ordering galley supplies and confirming passenger connections, announcements made to passengers promoting the air carrier or pointing out sights of interest, and filling out company payroll and related records are not required for the safe operation of the aircraft.

(b) No flight crewmember may engage in, nor may any pilot in command permit, any activity

the safe operation of the aircraft.

(c) For the purposes of this section, critical phases of flight includes all ground operations involving taxi, takeoff and landing, and all other flight operations conducted below 10,000 feet, except cruise flight.

NOTE: Taxi is defined as "movement of an airplane under its own power on the surface of an airport."

(Amdt. 135-11, Eff. 5/18/81); (Amdt. 135-14, Eff. 6/18/81); (Amdt. 135-15, Eff. 6/11/81)

§ 135.101 Second in command required in IFR conditions.

Except as provided in §§ 135.103 and 135.105, no person may operate an aircraft carrying passengers in IFR conditions, unless there is a second in command in the aircraft.

§ 135.103 Exception to second-in-command requirement: IFR operations.

The pilot in command of an aircraft carrying passengers may conduct IFR operations without a second in command under the following conditions:

(a) A takeoff may be conducted under IFR conditions if the weather reports or forecasts, or any combination of them, indicate that the weather along the planned route of flight allows flight under VFR within 15 minutes flying time, at normal cruise speed, from the takeoff airport.

(b) En route IFR may be conducted if unforecast weather conditions below the VFR minimums of this chapter are encountered on a flight that was planned to be conducted under VFR.

(c) An IFR approach may be conducted if, upon arrival at the destination airport, unforecast weather conditions do not allow an approach to be completed under VFR.

(d) When IFR operations are conducted under this section:

(1) The aircraft must be properly equipped for IFR operations under this part.

(2) The pilot must be authorized to conduct IFR operations under this part.

autopilot system.

(a) Except as provided in §§ 135.99 and 135.111, unless two pilots are required by this chapter for operations under VFR, a person may operate an aircraft without a second in command, if it is equipped with an operative approved autopilot system and the use of that system is authorized by appropriate operations specifications. No certificate holder may use any person, nor may any person serve, as a pilot in command under this section of an aircraft operated [in a commuter operation, as defined in part 119 of this chapter] unless that person has at least 100 hours pilot-in-command flight time in the make and model of aircraft to be flown and has met all other applicable requirements of this part.

(b) The certificate holder may apply for an amendment of its operations specifications to authorize the use of an autopilot system in place of a second in command.

(c) The Administrator issues an amendment to the operations specifications authorizing the use of an autopilot system, in place of a second in command, if—

(1) The autopilot is capable of operating the aircraft controls to maintain flight and maneuver it about the three axes; and

(2) The certificate holder shows, to the satisfaction of the Administrator, that operations using the autopilot system can be conducted safely and in compliance with this part.

The amendment contains any conditions or limitations on the use of the autopilot system that the Administrator determines are needed in the interest of safety.

(Amdt. 135-3, Eff. 3/1/80); [(Amdt. 135-58, Eff. 1/19/96)]

§ 135.107 Flight attendant crewmember requirement.

No certificate holder may operate an aircraft that has a passenger seating configuration, excluding any pilot seat, of more than 19 unless there is a flight attendant crewmember on board the aircraft.

§ 135.111 Second in command required in Category II operations.

No person may operate an aircraft in a Category II operation unless there is a second in command of the aircraft.

§ 135.113 Passenger occupancy of pilot seat.

No certificate holder may operate an aircraft type certificate after October 15, 1971, that has a passenger seating configuration, excluding any pilot seat, of more than eight seats if any person other than the pilot in command, a second in command, a company check airman, or an authorized representative of the Administrator, the National Transportation Safety Board, or the United States Postal Service occupies a pilot seat.

§ 135.115 Manipulation of controls.

No pilot in command may allow any person to manipulate the flight controls of an aircraft during flight conducted under this part, nor may any person manipulate the controls during such flight unless that person is—

(a) A pilot employed by the certificate holder and qualified in the aircraft; or

(b) An authorized safety representative of the Administrator who has the permission of the pilot in command, is qualified in the aircraft, and is checking flight operations.

§ 135.117 Briefing of passengers before flight.

(a) Before each takeoff each pilot in command of an aircraft carrying passengers shall ensure that all passengers have been orally briefed on—

(1) Smoking. [Each passenger shall be briefed on when, where, and under what conditions smoking is prohibited (including, but not limited to, any applicable requirements of part 252 of this title). This briefing shall include a statement that the Federal Aviation Regulations require pas-

tory; smoking in lavatories; and, when applicable, smoking in passenger compartments.

(2) [The use of safety belts, including instructions on how to fasten and unfasten the safety belts. Each passenger shall be briefed on when, where, and under what conditions the safety belt must be fastened about that passenger. This briefing shall include a statement that the Federal Aviation Regulations require passenger compliance with lighted passenger information signs and crewmember instructions concerning the use of safety belts.]

(3) The placement of seat backs in an upright position before takeoff and landing;

(4) Location and means for opening the passenger entry door and emergency exits;

(5) Location of survival equipment;

(6) If the flight involves extended overwater operation, ditching procedures and the use of required flotation equipment;

(7) If the flight involves operations above 12,000 feet MSL, the normal and emergency use of oxygen; and

(8) Location and operation of fire extinguishers.

(b) Before each takeoff the pilot in command shall ensure that each person who may need the assistance of another person to move expeditiously to an exit if an emergency occurs and that person's attendant, if any, has received a briefing as to the procedures to be followed if an evacuation occurs. This paragraph does not apply to a person who has been given a briefing before a previous leg of a flight in the same aircraft.

(c) The oral briefing required by paragraph (a) of this section shall be given by the pilot in command or a crewmember.

(d) Notwithstanding the provisions of paragraph (c) of this section, for aircraft certificated to carry 19 passengers or less, the oral briefing required by paragraph (a) of this section shall be given by the pilot in command, a crewmember, or other qualified person designated by the certificate holder and approved by the Administrator.

operating, the emergency exits, and
(3) Contain other instructions necessary for the use of emergency equipment on board the aircraft.

(f) The briefing required by paragraph (a) may be delivered by means of an approved recording playback device that is audible to each passenger under normal noise levels.

(Amdt. 135-20, Eff. 1/6/87); (Amdt. 135-25, Eff. 4/23/88); [(Amdt. 135-44, Eff. 10/15/92)]

§ 135.119 Prohibition against carriage of weapons.

No person may, while on board an aircraft being operated by a certificate holder, carry on or about that person a deadly or dangerous weapon, either concealed or unconcealed. This section does not apply to—

(a) Officials or employees of a municipality or a State, or of the United States, who are authorized to carry arms; or

(b) Crewmembers and other persons authorized by the certificate holder to carry arms.

§ 135.121 Alcoholic beverages.

(a) No person may drink any alcoholic beverage aboard an aircraft unless the certificate holder operating the aircraft has served that beverage.

(b) No certificate holder may serve any alcoholic beverage to any person aboard its aircraft if that person appears to be intoxicated.

(c) No certificate holder may allow any person to board any of its aircraft if that person appears to be intoxicated.

§ 135.122 Stowage of food, beverage, and passenger service equipment during aircraft movement on the surface, takeoff, and landing.

[(a) No certificate holder may move an aircraft on the surface, take off, or land when any food, beverage, or tableware furnished by the certificate holder is located at any passenger seat.

[(d) Each passenger shall comply with instructions given by a crewmember with regard to compliance with this system.]

[(Amdt. 135-44, Eff. 10/15/92)]

§ 135.123 Emergency and emergency evacuation duties.

(a) Each certificate holder shall assign to each required crewmember for each type of aircraft as appropriate, the necessary functions to be performed in an emergency or in a situation requiring emergency evacuation. The certificate holder shall ensure that those functions can be practicably accomplished, and will meet any reasonably anticipated emergency including incapacitation of individual crewmembers or their inability to reach the passenger cabin because of shifting cargo in combination cargo passenger aircraft.

(b) The certificate holder shall describe in the manual required under § 135.21 the functions of each category of required crewmembers assigned under paragraph (a) of this section.

§ 135.125 Airplane security.

Certificate holders conducting operations under this part shall comply with the applicable security requirements in part 108 of this chapter.

(Amdt. 135-9, Eff. 12/1/80); (Amdt. 135-10, Eff. 4/1/81)

§ 135.127 Passenger information.

(a) No person may conduct a scheduled flight segment on which smoking is prohibited unless the "No Smoking" passenger information signs are lighted during the entire flight segment, or one or more "No Smoking" placards meeting the requirements of § 25.1541 are posted during the entire flight segment. If both the lighted signs and the placards are used, the signs must remain lighted during the entire flight segment.

Smoking is prohibited on scheduled flight segments—

(1) Between any two points within Puerto Rico, the United States Virgin Islands, the Dis-

Guide or 6 hours or less in duration and between any point listed in paragraph (a)(1) of this section and any point in Alaska or Hawaii, or between any point in Alaska and any point in Hawaii.

(b) No person may smoke while a "No Smoking" sign is lighted or while "No Smoking" placards are posted, except that the pilot in command may authorize smoking on the flight deck (if it is physically separated from the passenger compartment) except during any movement of an aircraft on the surface, takeoff, and landing.

(c) No person may smoke in any aircraft lavatory.

(d) [No] person may operate an aircraft with a lavatory equipped with a smoke detector unless there is in that lavatory a sign or placard which reads: "Federal law provides for a penalty of up to \$2,000 for tampering with the smoke detector installed in this lavatory."

(e) No person may tamper with, disable, or destroy any smoke detector installed in any aircraft lavatory.

(f) On flight segments other than those described in paragraph (a) of this section, the "No Smoking" sign required by § 135.177(a)(3) of this part must be turned on during any movement of the aircraft on the surface, for each takeoff or landing, and at any other time considered necessary by the pilot in command.

(g) The passenger information requirements prescribed in § 91.517(b) and (d) of this chapter are in addition to the requirements prescribed in this section.

(h) Each passenger shall comply with instructions given him or her by crewmembers regarding compliance with paragraphs (b), (c), and (e) of this section.

(Amdt. 135-25, Eff. 4/23/88); (Amdt. 135-35, Eff. 2/25/90); (Amdt. 135-44, Eff. 10/15/92); [(Amdt. 135-60, Eff. 2/26/96)]

§ 135.128 Use of safety belts and child restraint systems.

(a) Except as provided in this paragraph, each person on board an aircraft operated under this part

for the occupant of a seat may not be used by more than one person who has reached his or her second birthday. Notwithstanding the preceding requirements, a child may:

(1) [Be held by an adult who is occupying an approved seat or berth, provided the child has not reached his or her second birthday and the child does not occupy or use any restraining device; or]

(2) Notwithstanding any other requirement of this chapter, occupy an approved child restraint system furnished by the certificate holder or one of the persons described in paragraph (a)(2)(i) of this section, provided:

(i) The child is accompanied by a parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight;

(ii) [Except as provided in paragraph (a)(2)(ii)(D) of this section, the approved child restraint system bears one or more labels as follows:]

(A) Seats manufactured to U.S. standards between January 1, 1981, and February 25, 1985, must bear the label: "This child restraint system conforms to all applicable Federal motor vehicle safety standards."

(B) Seats manufactured to U.S. standards on or after February 26, 1985, must bear two labels:

(1) "This child restraint system conforms to all applicable Federal motor vehicle safety standards"; and

(2) "THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIRCRAFT" in red lettering;

(C) Seats that do not qualify under paragraphs (a)(2)(ii)(A) and (a)(2)(ii)(B) of this section must bear either a label showing approval of a foreign government or a label showing that the seat was manufactured under the standards of the United Nations;

[(D) Notwithstanding any other provision of this section, booster-type child restraint

(A) The restraint system must be properly secured to an approved forward-facing seat or berth;

(B) The child must be properly secured in the restraint system and must not exceed the specified weight limit for the restraint system; and

(C) The restraint system must bear the appropriate label(s).

(b) [Except as provided in paragraph (b)(3), the following prohibitions apply to certificate holders:

[(1) No certificate holder may permit a child, in an aircraft, to occupy a booster-type child restraint system, a vest-type child restraint system, a harness-type child restraint system, or a lap held child restraint system during take off, landing, or movement on the surface.

[(2) Except as required in paragraph (b)(1) of this section, no certificate holder may prohibit a child, if requested by the child's parent, guardian, or designated attendant, from occupying a child restraint system furnished by the child's parent, guardian, or designated attendant provided:

[(i) The child holds a ticket for an approved seat or berth or such seat or berth is otherwise made available by the certificate holder for the child's use;

[(ii) The requirements of paragraph (a)(2)(i) are met;

[(iii) The requirements of (a)(2)(iii) are met; and

[(iv) The child restraint system has one or more of the labels described in paragraph (a)(2)(ii)(A) through paragraph (a)(2)(ii)(C).

[(3) This section does not prohibit the certificate holder from providing child restraint systems authorized by this or, consistent with safe operating practices, determining the most appropriate passenger seat location for the child restraint system.]

(Amdt. 135-44, Eff. 10/15/92); [(Amdt. 135-62, Eff. 9/3/96)]

Each certificate holder shall determine, to the extent necessary to perform the applicable functions of paragraph (d) of this section, the suitability of each person it permits to occupy an exit seat. For the purpose of this section—

(i) *Exit seat means*—

(A) Each seat having direct access to an exit; and

(B) Each seat in a row of seats through which passengers would have to pass to gain access to an exit, from the first seat inboard of the exit to the first aisle inboard of the exit.

(ii) A passenger seat having *direct access* means a seat from which a passenger can proceed directly to the exit without entering an aisle or passing around an obstruction.

(3) *Persons designated to make determination.* Each certificate holder shall make the passenger exit seating determinations required by this paragraph in a non-discriminatory manner consistent with the requirements of this section, by persons designated in the certificate holder's required operations manual.

(4) *Submission of designation for approval.* Each certificate holder shall designate the exit seats for each passenger seating configuration in its fleet in accordance with the definitions in this paragraph and submit those designations for approval as part of the procedures required to be submitted for approval under paragraphs (n) and (p) of this section.

(b) No certificate holder may seat a person in a seat affected by this section if the certificate holder determines that it is likely that the person would be unable to perform one or more of the applicable functions listed in paragraph (d) of this section because—

(1) The person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs:

(i) To reach upward, sideways, and downward to the location of emergency exit and exit-slide operating mechanisms;

(v) To remove obstructions of size and weight similar over-wing exit doors;

(vi) To reach the emergency exit expeditiously;

(vii) To maintain balance while removing obstructions;

(viii) To exit expeditiously;

(ix) To stabilize an escape slide after deployment; or

(x) To assist others in getting off an escape slide;

(2) The person is less than 15 years of age or lacks the capacity to perform one or more of the applicable functions listed in paragraph (d) of this section without the assistance of an adult companion, parent, or other relative;

(3) The person lacks the ability to read and understand instructions required by this section and related to emergency evacuation provided by the certificate holder in printed or graphic form or the ability to understand oral crew commands.

(4) The person lacks sufficient visual capacity to perform one or more of the applicable functions in paragraph (d) of this section without the assistance of visual aids beyond contact lenses or eyeglasses;

(5) The person lacks sufficient aural capacity to hear and understand instructions shouted by flight attendants, without assistance beyond a hearing aid;

(6) The person lacks the ability adequately to impart information orally to other passengers; or,

(7) The person has:

(i) A condition or responsibilities, such as caring for small children, that might prevent the person from performing one or more of the applicable functions listed in paragraph (d) of this section; or

(ii) A condition that might cause the person harm if he or she performs one or more of the applicable functions listed in paragraph (d) of this section.

(c) Each passenger shall comply with instructions given by a crewmember or other authorized employee of the certificate holder implementing exit

if called upon to perform the following functions:

(1) Locate the emergency exit;

(2) Recognize the emergency exit opening mechanism;

(3) Comprehend the instructions for operating the emergency exit;

(4) Operate the emergency exit;

(5) Assess whether opening the emergency exit will increase the hazards to which passengers may be exposed;

(6) Follow oral directions and hand signals given by a crewmember;

(7) Stow or secure the emergency exit door so that it will not impede use of the exit;

(8) Assess the conditions of an escape slide, activated the slide, and stabilize the slide after deployment to assist others in getting off the slide;

(9) Pass expeditiously through the emergency exit; and

(10) Assess, select, and follow a safe path away from the emergency exit.

(e) Each certificate holder shall include on passenger information cards, at each exit seat—

(1) In the primary language in which emergency commands are given by the crew, the selection criteria set forth in paragraph (b) of this section, and a request that a passenger identify himself or herself to allow reseating if he or she—

(i) Cannot meet the selection criteria set forth in paragraph (b) of this section;

(ii) Has a nondiscernible condition that will prevent him or her from performing the applicable functions listed in paragraph (d) of this section;

(iii) May suffer bodily harm as the result of performing one or more of those functions; or

(iv) Does not wish to perform those functions; and,

(2) In each language used by the certificate holder for passenger information cards, a request that a passenger identify himself or herself to allow reseating if he or she lacks the ability

(4) Does not wish to perform those functions. A certificate holder shall not require the passenger to disclose his or her reason for needing reseating.

(f) Each certificate holder shall make available for inspection by the public at all passenger loading gates and ticket counters at each airport where it conducts passenger operations, written procedures established for making determinations in regard to exit row seating.

(g) No certificate holder may allow taxi or pushback unless at least one required crewmember has verified that no exit seat is occupied by a person the crewmember determines is likely to be unable to perform the applicable functions listed in paragraph (d) of this section.

(h) Each certificate holder shall include in its passenger briefings a reference to the passenger information cards, required by paragraphs (d) and (e), the selection criteria set forth in paragraph (b), and the functions to be performed, set forth in paragraph (d) of this section.

(i) Each certificate holder shall include in its passenger briefings a request that a passenger identify himself or herself to allow reseating if he or she—

(1) Cannot meet the selection criteria set forth in paragraph (b) of this section;

(2) Has a nondiscernible condition that will prevent him or her from performing the applicable functions listed in paragraph (d) of this section;

(3) May suffer bodily harm as the result of performing one or more of those functions; or,

(4) Does not wish to perform those functions.

A certificate holder shall not require the passenger to disclose his or her reason for needing reseating.

(j) Removed and Reserved

(k) In the event a certificate holder determines in accordance with this section that it is likely that a passenger assigned to an exit seat would be unable to perform the functions listed in paragraph (d) of this section or a passenger requests a non-exit seat, the certificate holder shall expeditiously relocate the passenger to a non-exit seat.

(1) The passenger refuses to comply with instructions given by a crewmember or other authorized employee of the certificate holder implementing exit seating restrictions established in accordance with this section, or

(2) The only seat that will physically accommodate the person's handicap is an exit seat.

(n) In order to comply with this section certificate holders shall—

(1) Establish procedures that address:

(i) The criteria listed in paragraph (b) of this section;

(ii) The functions listed in paragraph (d) of this section;

(iii) The requirements for airport information, passenger information cards, crewmember verification of appropriate seating in exit seats, passenger briefings, seat assignments, and denial of transportation as set forth in this section;

(iv) How to resolve disputes arising from implementation of this section, including identification of the certificate holder employee on the airport to whom complaints should be addressed for resolution; and,

(2) Submit their procedures for preliminary review and approval to the principal operations inspectors assigned to them at the [certificate-holding district office.]

(o) Certificate holders shall assign seats prior to boarding consistent with the criteria listed in paragraph (b) and the functions listed in paragraph (d) of this section, to the maximum extent feasible.

(p) The procedures required by paragraph (n) of this section will not become effective until final approval is granted by the Director, Flight Standards Service, Washington, DC Approval will be based solely upon the safety aspects of the certificate holder's procedures.

(Amdt. 135-36, Eff. 4/5/90); (Amdt. 135-45, Eff. 10/27/92); (Amdt. 135-50, Eff. 7/29/94); [(Amdt. 135-60, Eff. 2/26/96)]

【Except as provided in § 135.3, this subpart—

【(a) Prescribes the tests and checks required for pilot and flight attendant crewmembers and for the approval of check pilots in operations under this part; and

【(b) Permits training center personnel authorized under part 142 of this chapter who meet the requirements of § 135.337 and § 135.339 to provide training, testing, and checking under contract or other arrangement to those persons subject to the requirements of this subpart.】

(Amdt. 135-57, Eff. 3/19/96); 【(Amdt. 135-63, Eff. 8/1/96)】

§ 135.293 Initial and recurrent pilot testing requirements.

(a) No certificate holder may use a pilot, nor may any person serve as a pilot, unless, since the beginning of the 12th calendar month before that service, that pilot has passed a written or oral test, given by the Administrator or an authorized check pilot, on that pilot's knowledge in the following areas—

(1) The appropriate provisions of parts 61, 91, and 135 of this chapter and the operations specifications and the manual of the certificate holder;

(2) For each type of aircraft to be flown by the pilot, the aircraft powerplant, major components and systems, major appliances, performance and operating limitations, standard and emergency operating procedures, and the contents of the approved Aircraft Flight Manual or equivalent, as applicable;

(3) For each type of aircraft to be flown by the pilot, the method of determining compliance with weight and balance limitations for takeoff, landing and en route operations;

(4) Navigation and use of air navigation aids appropriate to the operation or pilot authorization, including, when applicable, instrument approach facilities and procedures;

(5) Air traffic control procedures, including IFR procedures when applicable;

(6) Meteorology in general, including the principles of frontal systems, icing, fog, thunderstorms, and windshear, and, if appropriate for the operation of the certificate holder, high altitude weather;

(7) Procedures for—

(i) Recognizing and avoiding severe weather situations;

(ii) Escaping from severe weather situations, in case of inadvertent encounters, including low-altitude windshear (except that rotorcraft pilots are not required to be tested on escaping from low-altitude windshear); and

(iii) Operating in or near thunderstorms (including best penetrating altitudes), turbulent air (including clear air turbulence), icing, hail, and other potentially hazardous meteorological conditions; and

(8) New equipment, procedures, or techniques, as appropriate.

(b) No certificate holder may use a pilot, nor may any person serve as a pilot, in any aircraft unless, since the beginning of the 12th calendar month before that service, that pilot has passed a competency check given by the Administrator or an authorized check pilot in that class of aircraft, if single-engine airplane other than turbojet, or that type of aircraft, if helicopter, multiengine airplane, or turbojet airplane, to determine the pilot's competence in practical skills and techniques in that aircraft or class of aircraft. The extent of the competency check shall be determined by the Administrator or authorized check point conducting the competency check. The competency check may include any of the maneuvers and procedures currently required for the original issuance of the particular pilot certificate required for the operations authorized and appropriate to the category, class and type of aircraft involved. For the purposes of this paragraph, type, as to an airplane, means any one of a group of airplanes determined by the Administrator to have a similar means of propulsion, the same manufacturer, and no significantly different handling or flight characteristics. For the purposes of this paragraph, type, as to a helicopter, means a basic make and model.

(e) The Administrator or authorized check pilot certifies the competency of each pilot who passes the knowledge or flight check in the certificate holder's pilot records.

(f) Portions of a required competency check may be given in an aircraft simulator for other appropriate training device, if approved by the Administrator.

(Amdt. 135-27, Eff. 1/2/89)

§ 135.295 Initial and recurrent flight attendant crewmember testing requirements.

No certificate holder may use a flight attendant crewmember, nor may any person serve as a flight attendant crewmember unless, since the beginning of the 12th calendar month before that service, the certificate holder has determined by appropriate initial and recurrent testing that the person is knowledgeable and competent in the following areas as appropriate to assigned duties and responsibilities—

(a) Authority of the pilot in command;

(b) Passenger handling, including procedures to be followed in handling deranged persons or other persons whose conduct might jeopardize safety;

(c) Crewmember assignments, functions, and responsibilities during ditching and evacuation of persons who may need the assistance of another person to move expeditiously to an exit in an emergency;

(d) Briefing of passengers;

(e) Location and operation of portable fire extinguishers and other items of emergency equipment;

(f) Proper use of cabin equipment and controls;

(g) Location and operation of passenger oxygen equipment;

(h) Location and operation of all normal and emergency exits, including evacuation chutes and escape ropes; and

(i) Seating of persons who may need assistance of another person to move rapidly to an exit in

of the 6th calendar month before that service, that pilot has passed an instrument proficiency check under this section administered by the Administrator or an authorized check pilot.

(b) No pilot may use any type of precision instrument approach procedure under IFR unless, since the beginning of the 6th calendar month before that use, the pilot satisfactorily demonstrated that type of approach procedure. No pilot may use any type of nonprecision approach procedure under IFR unless, since the beginning of the 6th calendar month before that use, the pilot has satisfactorily demonstrated either that type of approach procedure or any other two different types of nonprecision approach procedures. The instrument approach procedure or procedures must include at least one straight-in approach, one circling approach, and one missed approach. Each type of approach procedure demonstrated must be conducted to published minimums for that procedure.

(c) The instrument proficiency check required by paragraph (a) of this section consists of an oral or written equipment test and a flight check under simulated or actual IFR conditions. The equipment test includes questions on emergency procedures, engine operation, fuel and lubrication systems, power settings, stall speeds, best engine-out speed, propeller and supercharger operations, and hydraulic, mechanical, and electrical systems, as appropriate. The flight check includes navigation by instruments, recovery from simulated emergencies, and standard instrument approaches involving navigational facilities which that pilot is to be authorized to use. Each pilot taking the instrument proficiency check must show that standard of competence required by § 135.293(d).

(1) The instrument proficiency check must—

(i) For a pilot in command of an airplane under § 135.243(a), include the procedures and maneuvers for an airline transport pilot certificate in the particular type of airplane, if appropriate; and

(ii) For a pilot in command of an airplane or helicopter under § 135.243(c), include the procedures and maneuvers for a commercial

(e) If the pilot in command is assigned to pilot more than one type of aircraft, that pilot must take the instrument proficiency check required by paragraph (a) of this section in each type of aircraft to which that pilot is assigned, in rotation, but not more than one flight check during each period described in paragraph (a) of this section.

(f) If the pilot in command is assigned to pilot both single-engine and multiengine aircraft, that pilot must initially take the instrument proficiency check required by paragraph (a) of this section in a multiengine aircraft, and each succeeding check alternately in single-engine and multiengine aircraft, but not more than one flight check during each period described in paragraph (a) of this section. Portions of a required flight check may be given in an aircraft simulator or other appropriate training device, if approved by the Administrator.

(g) If the pilot in command is authorized to use an autopilot system in place of a second in command, that pilot must show, during the required instrument proficiency check, that the pilot is able (without a second in command) both with and without using the autopilot to—

(1) Conduct instrument operations competently; and

(2) Properly conduct air-ground communications and comply with complex air traffic control instructions.

(3) Each pilot taking the autopilot check must show that, while using the autopilot, the airplane can be operated as proficiently as it would be if a second in command were present to handle air-ground communications and air traffic control instructions. The autopilot check need only be demonstrated once every 12 calendar months during the instrument proficiency check required under paragraph (a) of this section.

(h) [Deleted]

(Amdt. 135-15, Eff. 6/11/81)

§ 135.299 Pilot in command: Line checks: Routes and airports.

(a) No certificate holder may use a pilot, nor may any person serve as a pilot in command of

more representative airports. In addition to the requirements of this paragraph, for a pilot authorized to conduct IFR operations, at least one flight shall be flown over a civil airway, an approved off-airway route, or a portion of either of them.

(b) The pilot who conducts the check shall determine whether the pilot being checked satisfactorily performs the duties and responsibilities of a pilot in command in operations under this part, and shall so certify in the pilot training record.

(c) Each certificate holder shall establish in the manual required by § 135.21 a procedure which will ensure that each pilot who has not flown over a route and into an airport within the preceding 90 days will, before beginning the flight, become familiar with all available information required for the safe operation of that flight.

§ 135.301 Crewmember: Tests and checks, grace provisions, training to accepted standards.

(a) If a crewmember who is required to take a test or a flight check under this part, completes the test or flight check in the calendar month before or after the calendar month in which it is required, that crewmember is considered to have completed the test or check in the calendar month in which it is required.

(b) If a pilot being checked under this subpart fails any of the required maneuvers, the person giving the check may give additional training to the pilot during the course of the check. In addition to repeating the maneuvers failed, the person giving the check may require the pilot being checked to repeat any other maneuvers that are necessary to determine the pilot's proficiency. If the pilot being checked is unable to demonstrate satisfactory performance to the person conducting the check, the certificate holder may not use the pilot, nor may the pilot serve, as a flight crewmember in operations under this part until the pilot has satisfactorily completed the check.

§ 135.303 [(Removed)]

[(Amdt. 135-44, Eff. 10/15/92)]

(a) [Except as provided in § 135.3, this subpart prescribes the requirements applicable to—

[(1) A certificate holder under this part which contracts with, or otherwise arranges to use the services of a training center certificated under part 142 to perform training, testing, and checking functions;

[(2) Each certificate holder for establishing and maintaining an approved training program for crewmembers, check airmen and instructors, and other operations personnel employed or used by that certificate holder; and

[(3) Each certificate holder for the qualification, approval, and use of aircraft simulators and flight training devices in the conduct of the program.]

(b) For the purposes of this subpart, the following terms and definitions apply:

(1) *Initial training.* The training required for crewmembers who have not qualified and served in the same capacity on an aircraft.

(2) *Transition training.* The training required for crewmembers who have qualified and served in the same capacity on another aircraft.

(3) *Upgrade training.* The training required for crewmembers who have qualified and served as second in command on a particular aircraft type, before they serve as pilot in command on that aircraft.

(4) *Differences training.* The training required for crewmembers who have qualified and served on a particular type aircraft, when the Administrator finds differences training is necessary before a crewmember serves in the same capacity on a particular variation of that aircraft.

(5) *Recurrent training.* The training required for crewmembers to remain adequately trained and currently proficient for each aircraft, crewmember position, and type of operation in which the crewmember serves.

(6) *In flight.* The maneuvers, procedures, or functions that must be conducted in the aircraft.

[(7) *Training center.* An organization governed by the applicable requirements of part 142 of

this chapter that provides training, testing, and checking under contract or other arrangement to certificate holders subject to the requirements of this part.

[(8) *Requalification training.* The training required for crewmembers previously trained and qualified, but who have become unqualified due to not having met within the required period the—

[(i) Recurrent pilot testing requirements of § 135.293;

[(ii) Instrument proficiency check requirements of § 135.297; or

[(iii) Line checks required by § 135.299 of this part.]

(Amdt. 135–57, Eff. 3/19/96); [(Amdt. 135–63, Eff. 8/1/96)]

§ 135.323

Training program: General.

(a) Each certificate holder required to have a training program under § 135.341 shall:

(1) Establish, obtain the appropriate initial and final approval of, and provide a training program that meets this subpart and that ensures that each crewmember, flight instructor, check airman, and each person assigned duties for the carriage and handling of hazardous materials (as defined in 49 CFR 171.8) is adequately trained to perform their assigned duties.

(2) Provide adequate ground and flight training facilities and properly qualified ground instructors for the training required by this subpart.

(3) Provide and keep current for each aircraft type used and, if applicable, the particular variations within the aircraft type, appropriate training material, examinations, forms, instructions, and procedures for use in conducting the training and checks required by this subpart.

(4) Provide enough flight instructors, check airmen, and simulator instructors to conduct required flight training and flight checks, and simulator training courses allowed under this subpart.

(b) Whenever a crewmember who is required to take recurrent training under this subpart com-

part shall certify as to the proficiency and knowledge of the crewmember, flight instructor, or check airman concerned upon completion of that training or check. That certification shall be made a part of the crewmember's record. When the certification required by this paragraph is made by an entry in a computerized recordkeeping system, the certifying instructor, supervisor, or check airman, must be identified with that entry. However, the signature of the certifying instructor, supervisor, or check airman, is not required for computerized entries.

(d) Training subjects that apply to more than one aircraft or crewmember position and that have been satisfactorily completed during previous training while employed by the certificate holder for another aircraft or another crewmember position, need not be repeated during subsequent training other than recurrent training.

(e) Aircraft simulators and other training devices may be used in the certificate holder's training program if approved by the Administrator.

§ 135.324 Training program: Special Rules.

[(a) Other than the certificate holder, only another certificate holder certificated under this part or a training center certificated under part 142 of this chapter is eligible under this subpart to provide training, testing, and checking under contract or other arrangement to those persons subject to the requirements of this subpart.

[(b) A certificate holder may contract with, or otherwise arrange to use the services of, a training center certificated under part 142 of this chapter to provide training, testing, and checking required by this part only if the training center—

[(1) Holds applicable training specifications issued under part 142 of this chapter;

[(2) Has facilities, training equipment, and courseware meeting the applicable requirements of part 142 of this chapter;

[(3) Has approved curriculums, curriculum segments, and portions of curriculum segments applicable for use in training courses required by this subpart; and

initial and final approval.

(a) To obtain initial and final approval of a training program, or a revision to an approved training program, each certificate holder must submit to the Administrator—

(1) An outline of the proposed or revised curriculum, that provides enough information for a preliminary evaluation of the proposed training program or revision; and

(2) Additional relevant information that may be requested by the Administrator.

(b) If the proposed training program or revision complies with this subpart, the Administrator grants initial approval in writing after which the certificate holder may conduct the training under that program. The Administrator then evaluates the effectiveness of the training program and advises the certificate holder of deficiencies, if any, that must be corrected.

(c) The Administrator grants final approval of the proposed training program or revision if the certificate holder shows that the training conducted under the initial approval in paragraph (b) of this section ensures that each person who successfully completes the training is adequately trained to perform that person's assigned duties.

(d) Whenever the Administrator finds that revisions are necessary for the continued adequacy of a training program that has been granted final approval, the certificate holder shall, after notification by the Administrator, make any changes in the program that are found necessary by the Administrator. Within 30 days after the certificate holder receives the notice, it may file a petition to reconsider the notice with the Administrator. The filing of a petition to reconsider stays the notice pending a decision by the Administrator. However, if the Administrator finds that there is an emergency that requires immediate action in the interest of safety, the Administrator may, upon a statement of the reasons, require a change effective without stay.

including emergency training subjects, that are provided.

(2) A list of all the training devices, mockups, systems trainers, procedures trainers, or other training aids that the certificate holder will use.

(3) Detailed descriptions or pictorial displays of the approved normal, abnormal, and emergency maneuvers, procedures and functions that will be performed during each flight training phase or flight check, indicating those maneuvers, procedures and functions that are to be performed during the inflight portions of flight training and flight checks.

§ 135.329 Crewmember training requirements.

(a) Each certificate holder must include in its training program the following initial and transition ground training as appropriate to the particular assignment of the crewmember:

(1) Basic indoctrination ground training for newly hired crewmembers including instruction in at least the—

(i) Duties and responsibilities of crewmembers as applicable;

(ii) Appropriate provisions of this chapter;

(iii) Contents of the certificate holder's operating certificate and operations specifications (not required for flight attendants); and

(iv) Appropriate portions of the certificate holder's operating manual.

(2) The initial and transition ground training in §§ 135.345 and 135.349, as applicable.

(3) Emergency training in § 135.331.

(b) Each training program must provide the initial and transition flight training in § 135.347, as applicable.

(c) Each training program must provide recurrent ground and flight training in § 135.351.

(d) Upgrade training in §§ 135.345 and 135.347 for a particular type aircraft may be included in the training program for crewmembers who have qualified and served as second in command on that aircraft.

(2) Qualifies in new equipment, facilities, procedures, and techniques, including modifications to aircraft.

§ 135.331 Crewmember emergency training.

(a) Each training program must provide emergency training under this section for each aircraft type, model, and configuration, each crewmember, and each kind of operation conducted, as appropriate for each crewmember and the certificate holder.

(b) Emergency training must provide the following:

(1) Instruction in emergency assignments and procedures, including coordination among crewmembers.

(2) Individual instruction in the location, function, and operation of emergency equipment including—

(i) Equipment used in ditching and evacuation;

(ii) First-aid equipment and its proper use; and

(iii) Portable fire extinguishers, with emphasis on the type of extinguisher to be used on different classes of fires.

(3) Instruction in the handling of emergency situations including—

(i) Rapid decompression;

(ii) Fire in flight or on the surface and smoke control procedures with emphasis on electrical equipment and related circuit breakers found in cabin areas;

(iii) Ditching and evacuation;

(iv) Illness, injury, or other abnormal situations involving passengers or crewmembers; and

(v) Hijacking and other unusual situations.

(4) Review of the certificate holder's previous aircraft accidents and incidents involving actual emergency situations.

(c) Each crewmember must perform at least the following emergency drills, using the proper emergency equipment and procedures, unless the

minutes, if applicable.

(5) Use of crew and passenger oxygen.

(6) Removal of life rafts from the aircraft, inflation of the life rafts, use of life lines, and boarding of passengers and crew, if applicable.

(7) Donning and inflation of life vests and the use of other individual flotation devices, if applicable.

(d) Crewmembers who serve in operations above 25,000 feet must receive instruction in the following:

(1) Respiration.

(2) Hypoxia.

(3) Duration of consciousness without supplemental oxygen at altitude.

(4) Gas expansion.

(5) Gas bubble formation.

(6) Physical phenomena and incidents of decompression.

§ 135.333 Training requirements: Handling and carriage of hazardous materials.

(a) Except as provided in paragraph (d) of this section, no certificate holder may use any person to perform, and no person may perform, any assigned duties and responsibilities for the handling or carriage of hazardous materials (as defined in 49 CFR 171.8), unless within the preceding 12 calendar months that person has satisfactorily completed initial or recurrent training in an appropriate training program established by the certificate holder, which includes instruction regarding—

(1) The proper shipper certification, packaging, marking, labeling, and documentation for hazardous materials; and

(2) The compatibility, loading, storage, and handling characteristics of hazardous materials.

(b) Each certificate holder shall maintain a record of the satisfactory completion of the initial and recurrent training given to crewmembers and ground personnel who perform assigned duties and respon-

meeting the requirements of paragraphs (a) and (b) of this section to load, offload, or otherwise handle hazardous materials if these persons are supervised by a crewmember who is qualified under paragraphs (a) and (b) of this section.

§ 135.335 Approval of aircraft simulators and other training devices.

(a) Training courses using aircraft simulators and other training devices may be included in the certificate holder's training program if approved by the Administrator.

(b) Each aircraft simulator and other training device that is used in a training course or in checks required under this subpart must meet the following requirements:

(1) It must be specifically approved for—

(i) The certificate holder; and

(ii) The particular maneuver, procedure, or crewmember function involved.

(2) It must maintain the performance, functional, and other characteristics that are required for approval.

(3) Additionally, for aircraft simulators, it must be—

(i) Approved for the type aircraft and, if applicable, the particular variation within type for which the training or check is being conducted; and

(ii) Modified to conform with any modification to the aircraft being simulated that changes the performance, functional, or other characteristics required for approval.

(c) A particular aircraft simulator or other training device may be used by more than one certificate holder.

(d) In granting initial and final approval of training programs or revisions to them, the Administrator considers the training devices, methods, and procedures listed in the certificate holder's curriculum under § 135.327.

(Amdt. 135-1, Eff. 5/7/79)

for a particular type aircraft.

(2) A check airman (simulator) is a person who is qualified to conduct flight checks, but only in a flight simulator, in a flight training device, or both, for a particular type aircraft.

(3) Check airmen (aircraft) and check airmen (simulator) are those check airmen who perform the functions described in §§ 135.321(a) and 135.323(a)(4) and (c).

(b) [No certificate holder may use a person, nor may any person serve as a check airman (aircraft) in a training program established under this subpart unless, with respect to the aircraft type involved, that person—

(1) Holds the airman certificates and ratings required to serve as a pilot in command in operations under this part;

(2) Has satisfactorily completed the training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command in operations under this part;

(3) Has satisfactorily completed the proficiency or competency checks that are required to serve as a pilot in command in operations under this part;

(4) Has satisfactorily completed the applicable training requirements of § 135.339;

(5) Holds at least a Class III medical certificate unless serving as a required crewmember, in which case holds a Class I or Class II medical certificate as appropriate.

(6) Has satisfied the recency of experience requirements of § 135.247; and

(7) Has been approved by the Administrator for the check airman duties involved.

[(c) No certificate holder may use a person, nor may any person serve as a check airman (simulator) in a training program established under this subpart unless, with respect to the aircraft type involved, that person meets the provisions of paragraph (b) of this section, or—

(1) Holds the applicable airman certificates and ratings, except medical certificate, required to serve as a pilot in command in operations under this part;

(4) Has satisfactorily completed the applicable training requirements of § 135.339; and

(5) Has been approved by the Administrator for the check airman (simulator) duties involved.

[(d) Completion of the requirements in paragraphs (b)(2), (3), and (4) or (c)(2), (3), and (4) of this section, as applicable, shall be entered in the individual's training record maintained by the certificate holder.

[(e) Check airmen who do not hold an appropriate medical certificate may function as check airmen (simulator), but may not serve as flightcrew members in operations under this part.

[(f) A check airman (simulator) must accomplish the following—

(1) Fly at least two flight segments as a required crewmember for the type, class, or category aircraft involved within the 12-month period preceding the performance of any check airman duty in a flight simulator; or

(2) Satisfactorily complete an approved line-observation program within the period prescribed by that program and that must precede the performance of any check airman duty in a flight simulator.

[(g) The flight segments or line-observation program required in paragraph (f) of this section are considered to be completed in the month required if completed in the calendar month before or the calendar month after the month in which they are due.]

[(Amdt. 135-64, Eff. 6/17/96)]

[§ 135.338 Qualifications: Flight instructors (aircraft) and flight instructors (simulator).]

[(a) For the purposes of this section and § 135.340:

(1) A flight instructor (aircraft) is a person who is qualified to instruct in an aircraft, in a flight simulator, or in a flight training device for a particular type, class, or category aircraft.

(2) A flight instructor (simulator) is a person who is qualified to instruct in a flight simulator,

in a training program established under this subpart unless, with respect to the type, class, or category aircraft involved, that person—

(1) Holds the airman certificates and ratings required to serve as a pilot in command in operations under this part;

(2) Has satisfactorily completed the training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command in operations under this part;

(3) Has satisfactorily completed the proficiency or competency checks that are required to serve as a pilot in command in operations under this part;

(4) Has satisfactorily completed the applicable training requirements of § 135.340;

(5) Holds at least a Class III medical certificate; and

(6) Has satisfied the recency of experience requirements of § 135.247.

[(c) No certificate holder may use a person, nor may any person serve as a flight instructor (simulator) in a training program established under this subpart unless, with respect to the type, class, or category aircraft involved, that person meets the provisions of paragraph (b) of this section, or—

(1) Holds the airman certificates and ratings, except medical certificate, required to serve as a pilot in command in operations under this part except before February 19, 1997, that person need not hold a type rating for the type, class, or category of aircraft involved.

(2) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command in operations under this part;

(3) Has satisfactorily completed the appropriate proficiency or competency checks that are required to serve as a pilot in command in operations under this part; and

(4) Has satisfactorily completed the applicable training requirements of § 135.340.

[(d) Completion of the requirements in paragraphs (b)(2), (3), and (4) or (c)(2), (3), and (4) of this section, as applicable, shall be entered in

when the following:

(1) Fly at least two flight segments as a required crewmember for the type, class, or category aircraft involved within the 12-month period preceding the performance of any flight instructor duty in a flight simulator; or

(2) Satisfactorily complete an approved line-observation program within the period prescribed by that program and that must precede the performance of any check airman duty in a flight simulator.

[(g) The flight segments or line-observation program required in paragraph (f) of this section are considered completed in the month required if completed in the calendar month before, or in the calendar month after, the month in which they are due.]

[(Amdt. 135-64, Eff. 6/17/96)]

§ 135.339

[Initial and transition training and checking: Check airmen (aircraft), check airmen (simulator).]

(a) [No certificate holder may use a person nor may any person serve as a check airman unless—

(1) That person has satisfactorily completed initial or transition check airman training; and

(2) Within the preceding 24 calendar months, that person satisfactorily conducts a proficiency or competency check under the observation of an FAA inspector or an aircrew designated examiner employed by the operator. The observation check may be accomplished in part or in full in an aircraft, in a flight simulator, or in a flight training device. This paragraph applies after February 19, 1997.

(b) [The observation check required by paragraph (a)(2) of this section is considered to have been completed in the month required if completed in the calendar month before or the calendar month after the month in which it is due.

[(c) The initial ground training for check airmen must include the following:

(1) Check airman duties, functions, and responsibilities.

that could adversely affect safety.

(5) The corrective action in the case of unsatisfactory checks.

(6) The approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

[(d) The transition ground training for check airmen must include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to which the check airman is in transition.

[(e) The initial and transition flight training for check airmen (aircraft) must include the following—

(1) The safety measures for emergency situations that are likely to develop during a check;

(2) The potential results of improper, untimely, or nonexecution of safety measures during a check;

(3) Training and practice in conducting flight checks from the left and right pilot seats in the required normal, abnormal, and emergency procedures to ensure competence to conduct the pilot flight checks required by this part; and

(4) The safety measures to be taken from either pilot seat for emergency situations that are likely to develop during checking.

[(f) The requirements of paragraph (e) of this section may be accomplished in full or in part in flight, in a flight simulator, or in a flight training device, as appropriate.

[(g) The initial and transition flight training for check airmen (simulator) must include the following:

(1) Training and practice in conducting flight checks in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight checks required by this part.

This training and practice must be accomplished in a flight simulator or in a flight training device.

(2) Training in the operation of flight simulators, flight training devices, or both, to ensure

[(a) No certificate holder may use a person nor may any person serve as a flight instructor unless—

(1) That person has satisfactorily completed initial or transition flight instructor training; and

(2) Within the preceding 24 calendar months, that person satisfactorily conducts instruction under the observation of an FAA inspector, an operator check airman, or an aircrew designated examiner employed by the operator. The observation check may be accomplished in part or in full in an aircraft, in a flight simulator, or in a flight training device. This paragraph applies after February 19, 1997.

[(b) The observation check required by paragraph (a)(2) of this section is considered to have been completed in the month required if completed in the calendar month before, or the calendar month after, the month in which it is due.

[(c) The initial ground training for flight instructors must include the following:

(1) Flight instructor duties, functions, and responsibilities.

(2) The applicable Code of Federal Regulations and the certificate holder's policies and procedures.

(3) The applicable methods, procedures, and techniques for conducting flight instruction.

(4) Proper evaluation of student performance including the detection of—

(i) Improper and insufficient training; and

(ii) Personal characteristics of an applicant that could adversely affect safety.

(5) The corrective action in the case of unsatisfactory training progress.

(6) The approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(7) Except for holders of a flight instructor certificate—

(i) The fundamental principles of the teaching-learning process;

(ii) Teaching methods and procedures; and

(iii) The instructor-student relationship.

tions that are likely to develop during instruction;

(2) The potential results of improper or untimely safety measures during instruction;

(3) Training and practice from the left and right pilot seats in the required normal, abnormal, and emergency maneuvers to ensure competence to conduct the flight instruction required by this part; and

(4) The safety measures to be taken from either the left or right pilot seat for emergency situations that are likely to develop during instruction.

[(f) The requirements of paragraph (e) of this section may be accomplished in full or in part in flight, in a flight simulator, or in a flight training device, as appropriate.

[(g) The initial and transition flight training for a flight instructor (simulator) must include the following:

(1) Training and practice in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight instruction required by this part. These maneuvers and procedures must be accomplished in full or in part in a flight simulator or in a flight training device.

(2) Training in the operation of flight simulators, flight training devices, or both, to ensure competence to conduct the flight instruction required by this part.]

[(Amdt. 135-64, Eff. 6/17/96)]

§ 135.341 Pilot and flight attendant crewmember training programs.

(a) Each certificate holder, other than one who uses only one pilot in the certificate holder's operations, shall establish and maintain an approved pilot training program, and each certificate holder who uses a flight attendant crewmember shall establish and maintain an approved flight attendant training program, that is appropriate to the operations to which each pilot and flight attendant is to be assigned, and will ensure that they are adequately trained to meet the applicable knowledge and practical testing

(1) Initial training;

(2) Transition training;

(3) Upgrade training;

(4) Differences training; and

(5) Recurrent training.

(c) Each certificate holder required to have a training program by paragraph (a) of this section shall provide current and appropriate study materials for use by each required pilot and flight attendant.

(d) The certificate holder shall furnish copies of the pilot and flight attendant crewmember training program, and all changes and additions, to the assigned representative of the Administrator. If the certificate holder uses training facilities of other persons, a copy of those training programs or appropriate portions used for those facilities shall also be furnished. Curricula that follow FAA published curricula may be cited by reference in the copy of the training program furnished to the representative of the Administrator and need not be furnished with the program.

(Amdt. 135-18, Eff. 8/2/82)

§ 135.343 Crewmember initial and recurrent training requirements.

No certificate holder may use a person, nor may any person serve, as a crewmember in operations under this part unless that crewmember has completed the appropriate initial or recurrent training phase of the training program appropriate to the type of operation in which the crewmember is to serve since the beginning of the 12th calendar month before that service. This section does not apply to a certificate holder that uses only one pilot in the certificate holder's operations.

(Amdt. 135-18, Eff. 8/2/82)

§ 135.345 Pilots: Initial, transition, and upgrade ground training.

Initial, transition, and upgrade ground training for pilots must include instruction in at least the following, as applicable to their duties:

(a) General subjects—

tude weather situations;

(4) Air traffic control systems, procedures, and phraseology;

(5) Navigation and the use of navigational aids, including instrument approach procedures;

(6) Normal and emergency communication procedures;

(7) Visual cues before and during descent below DH or MDA; and

(8) Other instructions necessary to ensure the pilot's competence.

(b) For each aircraft type—

(1) A general description;

(2) Performance characteristics;

(3) Engines and propellers;

(4) Major components;

(5) Major aircraft systems (i.e., flight controls, electrical, and hydraulic), other systems, as appropriate, principles of normal, abnormal, and emergency operations, appropriate procedures and limitations;

(6) **Knowledge and** procedures for—

(i) Recognizing and avoiding severe weather situations;

(ii) Escaping from severe weather situations, in case of inadvertent encounters, including low-altitude windshear (except that rotorcraft pilots are not required to be trained in escaping from low-altitude windshear);

(iii) Operating in or near thunderstorms (including best penetrating altitudes), turbulent air (including clear air turbulence), icing, hail, and other potentially hazardous meteorological conditions; and

(iv) Operating airplanes during ground icing conditions, (i.e., any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the airplane), if the certificate holder expects to authorize takeoffs in ground icing conditions, including:

(A) The use of holdover times when using deicing/anti-icing fluids;

(B) Airplane deicing/anti-icing procedures, including inspection and check procedures and responsibilities;

(F) Cold weather preflight inspection procedures;

(G) Techniques for recognizing contamination on the airplane;

(7) Operating limitations;

(8) Fuel consumption and cruise control;

(9) Flight planning;

(10) Each normal and emergency procedure; and

(11) The approved Aircraft Flight Manual, or equivalent.

(Amdt. 135-27, Eff. 1/2/89); **(Amdt. 135-46, Eff. 1/31/94)**

§ 135.347 Pilots: Initial, transition, upgrade, and differences flight training.

(a) Initial, transition, upgrade, and differences training for pilots must include flight and practice in each of the maneuvers and procedures in the approved training program curriculum.

(b) The maneuvers and procedures required by paragraph (a) of this section must be performed in flight, except to the extent that certain maneuvers and procedures may be performed in an aircraft simulator, or an appropriate training device, as allowed by this subpart.

(c) If the certificate holder's approved training program includes a course of training using an aircraft simulator or other training device, each pilot must successfully complete—

(1) Training and practice in the simulator or training device in at least the maneuvers and procedures in this subpart that are capable of being performed in the aircraft simulator or training device; and

(2) A flight check in the aircraft or a check in the simulator or training **[device]*** to the level of proficiency of a pilot in command or second in command, as applicable, in at least the maneuvers and procedures that are capable of being performed in an aircraft simulator or training device.

*Corrected

(2) Passenger handling, including procedures to be followed in handling deranged persons or other persons whose conduct might jeopardize safety.

(b) For each aircraft type—

(1) A general description of the aircraft emphasizing physical characteristics that may have a bearing on ditching, evacuation, and inflight emergency procedures and on other related duties;

(2) The use of both the public address system and the means of communicating with other flight crewmembers, including emergency means in the case of attempted hijacking or other unusual situations; and

(3) Proper use of electrical galley equipment and the controls for cabin heat and ventilation.

§ 135.351 Recurrent training.

(a) Each certificate holder must ensure that each crewmember receives recurrent training and is adequately trained and currently proficient for the type aircraft and crewmember position involved.

(b) Recurrent ground training for crewmembers must include at least the following:

gency training.】

(c) Recurrent flight training for pilots must include, at least, flight training in the maneuvers or procedures in this subpart, except that satisfactory completion of the check required by § 135.293 within the preceding 12 calendar months may be substituted for recurrent flight training.

(Amdt. 135-27, Eff. 1/2/89); 【(Amdt. 135-46, Eff. 1/31/94)】

§ 135.353 Prohibited drugs.

(a) Each certificate holder or operator shall provide each employee performing a 【function listed】* in appendix I to part 121 of this chapter and his or her supervisor with the training specified in that appendix.

(b) No certificate holder or operator may use any contractor to perform a function specified in appendix I to part 121 of this chapter unless that contractor provides each of its employees performing that function for the certificate holder or the operator and his or her supervisor with the training specified in that appendix.

Docket No. 25148 (53 FR 47061) Eff. 11/21/88;
(Amdt. 135-28, Eff. 12/21/88)

passenger-carrying operations in airplanes that have passenger-seating configurations of 10 to 30 seats (excluding any crewmember seat) and those conducting scheduled passenger-carrying operations in turbojet airplanes regardless of seating configuration. The rule revises the requirements concerning operating certificates and operations specifications for all part 121, 125, and 135 certificate holders. The rule also requires certain management officials for all certificate holders under parts 121 and 135. The rule is intended to increase safety in scheduled passenger-carrying operations and to clarify, update, and consolidate the certification and operations requirements for persons who transport passengers or property by air for compensation or hire.

NOTE: Please refer to preamble pages P-619 through P-734 for entire preamble.

Special Federal Aviation Regulation 38-13

Operating Requirements: Domestic Flag, Supplemental, Commuter, and On-Demand Operations: Corrections and Editorial Changes

Adopted: June 4, 1996

Effective: July 15, 1996

(Published in 61 FR 30432, June 14, 1996)

SUMMARY: This amendment adopts changes that are editorial or typographical in nature in parts 119, 121, and 135. The changes are necessary to correct errors or clarify the intent of the regulations published on December 20, 1995 (60 FR 65832). The changes in this amendment will not impose any additional restrictions on persons affected by these regulations.

NOTE: Please refer to preamble pages P-837 through P-839 for entire preamble.

- (a)(2) Certification requirements.
- (a)(3) Operating requirements.
- (b) Operations conducted under more than one paragraph.
- (c) Prohibition against operating without certificate or in violation of operations specifications.

2. Certificates and foreign air carrier operations specifications.

- (a) Air Carrier Operating Certificate.
- (b) Operating Certificate.
- (c) Foreign air carrier operations specifications.

3. Operations specifications.

4. Air carriers and those commercial operators engaged in scheduled intrastate common carriage.

- (a)(1) Airplanes, more than 30 seats/7,500 pounds payload, scheduled within 48 States.
- (a)(2) Airplanes, more than 30 seats/7,500 pounds payload, scheduled outside 48 States.
- (a)(3) Airplanes, more than 30 seats/7,500 pounds payload, not scheduled and all cargo.
- (b) Airplanes, 30 seats or less/7,500 or less pounds payload.
- (c) Rotorcraft, 30 seats or less/7,500 pounds or less payload.
- (d) Rotorcraft, more than 30 seats/more than 7,500 pounds payload.

5. Operations conducted by a person who is not engaged in air carrier operations, but is engaged in passenger operations, cargo operations, or both, as a commercial operator.

- (a) Airplanes, 20 or more seats/6,000 or more pounds payload.
- (b) Airplanes, less than 20 seats/less than 6,000 pounds payload.
- (c) Rotorcraft, 30 seats or less/7,500 pounds or less payload.
- (d) Rotorcraft, more than 30 seats/more than 7,500 pounds payload.

6. Definitions.

- (a) Terms in FAR.
 - (1) Domestic/flag/supplemental/commuter.
 - (2) ATCO.
- (b) FAR references to:
 - (1) Domestic air carriers.
 - (2) Flag air carriers.
 - (3) Supplemental air carriers.

- (6) Maximum payload capacity.
- (7) Empty weight.
- (8) Maximum zero fuel weight.
- (9) Justifiable aircraft equipment.

(2) The certification requirements an operator must meet in order to obtain and hold operations specifications for each type of operation conducted and each class and size of aircraft operated; and

(3) The operating requirements an operator must meet in conducting each type of operation and in operating each class and size of aircraft authorized in its operations specifications.

A person shall be issued only one certificate and all operations shall be conducted under that certificate, regardless of the type of operation or the class or size of aircraft operated. A person holding an air carrier operating certificate may not conduct any operations under the rules of part 125.

(b) Persons conducting operations under more than one paragraph of this SFAR shall meet the certification requirements specified in each paragraph and shall conduct operations in compliance with the requirements of the Federal Aviation Regulations specified in each paragraph for the operation conducted under that paragraph.

(c) Except as provided under this SFAR, no person may operate as an air carrier or as a commercial operator without, or in violation of, a certificate and operations specifications issued under this SFAR.

[(d) Persons conducting operations under this SFAR shall continue to comply with the applicable requirements of §§ 121.6, 121.57, 121.59, 121.61, 121.71 through 121.83, 135.5, 135.11(c), 135.15, 135.17, 135.27, 135.29, 135.33, 135.35, 135.37, and 135.39 of this chapter as in effect on January 18, 1996, until March 20, 1997, or until the date on which the certificate holder is issued operations specifications in accordance with part 119, whichever occurs first. A copy of these regulations may be obtained from the Federal Aviation Administration, Office of Rulemaking (ARM), 800 Independence Ave., SW., Washington, DC 20591, or by phone (202) 267-9677.]

2. Certificates and foreign air carrier operations specifications.

(a) Persons authorized to conduct operations as an air carrier will be issued an Air Carrier Operating Certificate.

(b) Persons who are not authorized to conduct air carrier operations, but who are authorized to conduct passenger, cargo, or both, operations as a commercial operator will be issued an Operating Certificate.

(c) FAA certificates are not issued to foreign air carriers. Persons authorized to conduct operations in the United States as a foreign air carrier who hold a permit issued under Section 402 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1372), or other appropriate economic or exemption authority issued by the appropriate agency of the United States of America will be issued operations specifications in accordance with the requirements of part 129 and shall conduct their operations within the United States in accordance with those requirements.

3. Operations specifications.

The operations specifications associated with a certificate issued under paragraph 2(a) or (b) and the operations specifications issued under paragraph 2(c) of this SFAR will prescribe the authorizations, limitations and certain procedures under which each type of operation shall be conducted and each class and size of aircraft shall be operated.

4. Air carriers, and those commercial operators engaged in scheduled intrastate common carriage.

Each person who conducts operations as an air carrier or as a commercial operator engaged in scheduled intrastate common carriage of persons or property for compensation or hire in air commerce with—

District of Columbia with those airplanes in accordance with the requirements of part 121 applicable to flag air carriers, and shall be issued operations specifications for those operations in accordance with those requirements.

(3) All-cargo operations and operations that are not scheduled with those airplanes in accordance with the requirements of part 121 applicable to supplemental air carriers, and shall be issued operations specifications for those operations in accordance with those requirements; except the Administrator may authorize those operations to be conducted under paragraph (4)(a)(1) or (2) of this paragraph.

(b) Airplanes having a maximum passenger seating configuration of 30 seats or less, excluding any required crewmember seat, and a maximum payload capacity of 7,500 pounds or less, shall comply with the certification requirements in part 135, and conduct its operations with those airplanes in accordance with the requirements of part 135, and shall be issued operations specifications for those operations in accordance with those requirements; except that the Administrator may authorize a person conducting operations in transport category airplanes to conduct those operations in accordance with the requirements of paragraph 4(a) of this paragraph.

(c) Rotorcraft having a maximum passenger seating configuration of 30 seats or less and a maximum payload capacity of 7,500 pounds or less shall comply with the certification requirements in part 135, and conduct its operations with those aircraft in accordance with the requirements of part 135, and shall be issued operations specifications for those operations in accordance with those requirements.

(d) Rotorcraft having a passenger seating configuration of more than 30 seats or a payload capacity of more than 7,500 pounds shall comply with the certification requirements in part 135, and conduct its operations with those aircraft in accordance with the requirements of part 135, and shall be issued special operations specifications for those operations in accordance with those requirements and this SFAR.

5. Operations conducted by a person who is not engaged in air carrier operations, but is engaged in passenger operations, cargo operations, or both, as a commercial operator.

Each person, other than a person conducting operations under paragraph 2(c) or 4 of this SFAR, who conducts operations with—

(a) Airplanes having a passenger seating configuration of 20 or more, excluding any required crewmember seat, or a maximum payload capacity of 6,000 pounds or more, shall comply with the certification requirements in part 125, and conduct its operations with those airplanes in accordance with the requirements of part 125, and shall be issued operations specifications in accordance with those requirements, or shall comply with an appropriate deviation authority.

(b) Airplanes having a maximum passenger seating configuration of less than 20 seats, excluding any required crewmember seat, and a maximum payload capacity of less than 6,000 pounds shall comply with the certification requirements in part 135, and conduct its operations in those airplanes in accordance with the requirements of part 135, and shall be issued operations specifications in accordance with those requirements.

(c) Rotorcraft having a maximum passenger seating configuration of 30 seats or less and a maximum payload capacity of 7,500 pounds or less shall comply with the certification requirements in part 135, and conduct its operations in those aircraft in accordance with the requirements of part 135, and shall be issued operations specifications for those operations in accordance with those requirements.

(d) Rotorcraft having a passenger seating configuration of more than 30 seats or a payload capacity of more than 7,500 pounds shall comply with the certification requirements in part 135, and conduct its operations with those aircraft in accordance with the requirements of part 135, and shall be issued special operations specifications for those operations in accordance with those requirements and this SFAR.]

references to an operating certificate shall be deemed to mean an "Operating Certificate" issued under this SFAR unless the context indicates the reference is to an Air Carrier Operating Certificate.

(b) Wherever in the Federal Aviation Regulations a regulation applies to—

(1) "Domestic air carriers," it will be deemed to mean a regulation that applies to scheduled operations solely within the 48 contiguous states of the United States and the District of Columbia conducted by persons described in paragraph 4(a)(1) of this SFAR.

(2) "Flag air carriers," it will be deemed to mean a regulation that applies to scheduled operations to any point outside the 48 contiguous states of the United States and the District of Columbia conducted by persons described in paragraph 4(a)(2) of this SFAR.

(3) "Supplemental air carriers," it will be deemed to mean a regulation that applies to charter and all-cargo operations conducted by persons described in paragraph 4(a)(3) of this SFAR.

(4) "Commuter air carriers," it will be deemed to mean a regulation that applies to scheduled passenger carrying operations, with a frequency of operations of at least five round trips per week on at least one route between two or more points according to the published flight schedules, conducted by persons described in paragraph 4(b) or (c) of this SFAR. This definition does not apply to part 93 of this chapter.

(c) For the purpose of this SFAR, the term—

(1) "Air carrier" means a person who meets the definition of an air carrier as defined in the Federal Aviation Act of 1958, as amended.

(2) "Commercial operator" means a person, other than an air carrier, who conducts operations in air commerce carrying persons or property for compensation or hire.

(3) "Foreign air carrier" means any person other than a citizen of the United States, who undertakes, whether directly or indirectly or by lease or any other arrangement, to engage in foreign air transportation.

(4) "Scheduled operations" means operations that are conducted in accordance with a published schedule for passenger operations which includes dates or times (or both) that is openly advertised or otherwise made readily available to the general public.

(5) "Size of aircraft" means an aircraft's size as determined by its seating configuration or payload capacity, or both.

(6) "Maximum payload capacity" means:

(i) For an aircraft for which a maximum zero fuel weight is prescribed in FAA technical specifications, the maximum zero fuel weight, less empty weight, less all justifiable aircraft equipment, and less the operating load (consisting of minimum flight crew, foods and beverages, and supplies and equipment related to foods and beverages, but not including disposable fuel or oil).

(ii) For all other aircraft, the maximum certificated takeoff weight of an aircraft, less the empty weight, less all justifiable aircraft equipment, and less the operating load (consisting of minimum fuel load, oil, and flightcrew). The allowance for the weight of the crew, oil, and fuel is as follows:

(A) Crew—200 pounds for each crewmember required by the Federal Aviation Regulations.

(B) Oil—350 pounds.

(C) Fuel—the minimum weight of fuel required by the applicable Federal Aviation Regulations for a flight between domestic points 174 nautical miles apart under VFR weather conditions that does not involve extended overwater operations.

of altering the empty weight of an aircraft to meet the maximum payload capacity.

This Special Federal Aviation Regulation No. 38-2 terminates [March 20, 1997], or the effective date of the codification of SFAR 38-2 into the Federal Aviation Regulations, whichever occurs first.

ants, aircraft dispatchers, instructors, evaluators and other operations personnel subject to the training and qualification requirements of 14 CFR parts 121 and 135. The FAA has developed this alternative method in response to recommendations made by representatives from the government, airlines, aircrew professional organizations, and airline industry organizations. The SFAR is designed to improve aircrew performance and allows certificate holders that are subject to the training requirements of parts 121 and 135 to develop innovative training programs that incorporate the most recent advances in training methods and techniques.

NOTE: Please refer to preamble page P-384 for entire preamble.

Special Federal Aviation Regulation 58-1

Advanced Qualification Program

Adopted: September 27, 1995

Effective: September 27, 1995

**(Published in 60 FR 51850, October 3, 1995)
(Corrected in 60 FR 57334, November 15, 1995)**

SUMMARY: The FAA establishes a new termination date for Special Federal Aviation Regulation (SFAR) No. 58 (55 FR 40275; Oct. 2, 1990), which provides for the approval of an alternate method (known as "Advanced Qualification Program" or "AQP") for qualifying, training and certifying, and otherwise ensuring the competency of crewmembers, aircraft dispatchers, other operations personnel, instructors, and evaluators who are required to be trained or qualified under parts 121 and 135 of the FAR. This action will establish a new termination date, of October 2, 2000, for SFAR 58 to allow time for the FAA to complete the rulemaking process that will incorporate SFAR 58 into the Federal Aviation Regulations (FAR).

FOR FURTHER INFORMATION CONTACT: Mr. John Allen, Advanced Qualification Program Branch (AFS-230), Air Transportation Division, Office of Flight Standards, Federal Aviation Administration, P.O. Box 20027, Dulles International Airport, Washington, DC 20041-2027; telephone (703) 661-0260.

SUPPLEMENTARY INFORMATION:

Background

On August 16, 1995, the FAA issued a Notice of Proposed Rulemaking proposing to extend the expiration date of SFAR 58 (60 FR 42764). The comment period closed on September 5, 1995; two comments were received. The Air Line Pilots Association and the Regional Airline Association both supported the extension of SFAR 58 until October 2, 2000. The amendment is adopted as proposed.

Good Cause Justification for Immediate Adoption

The reasons which justified the original issuance of SFAR 58 still exist. Therefore, it is in the public interest to establish a new expiration date for SFAR 58 of October 2, 2000. If the FAA publishes a final rule incorporating SFAR 58 into the regulations before this expiration date, SFAR 58 will be rescinded concurrently. In the meantime, the continuation of SFAR 58 is necessary to permit continued training under this program and to avoid the confusion that would result if the program were discontinued.

For this reason, and because as a voluntary program the AQP imposes no additional burden on any person, the FAA finds that the amendment should be made effective immediately upon issuance. However, interested persons are invited to submit such comments as they desire regarding this amendment. Comments should identify the docket number and be submitted in duplicate to the address above. All

participating in the program. AQP gives air carriers flexibility in meeting the safety goals of the training programs in parts 121 and 135 without sacrificing any of the safety benefits derived from those programs. Thus, extending AQP for another 5 years would not impose any additional costs nor decrease the present level of safety. Because this extension—(1) is extending an existing program; (2) is voluntary; and (3) has become an important means for some operators to comply with the training requirements, the FAA finds that a full detailed regulatory evaluation is not necessary.

International Trade Impact Analysis

The amendment would not constitute a barrier to international trade, including the export of American goods and services to foreign countries and the import of foreign goods and services into the United States. Since air carriers will not participate in AQP unless it was in their best interest, they likewise will not participate if it would impose a competitive disadvantage on them. Also, the concept of AQP is being embraced by foreign operators as well.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by Federal regulations. The RFA requires a Regulatory Flexibility Analysis if a rule will have "significant economic impact on a substantial number of small entities." FAA Order 2100.14A outlines the FAA's procedures and criteria for implementing the RFA. Since this action would extend what has become an important means for some air carriers to comply with training requirements, the extension will not impose costs above those that air carriers are already incurring, and certainly not above what they would incur from adopting a part 121 or part 135 training program. Thus, the rule if issued, will not impose a significant economic impact on a substantial number of small entities.

Federalism Implications

The regulation amended herein would not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Thus, in accordance with Executive Order 12612, it is determined that this regulation does not have federalism implications warranting preparation of a Federalism Assessment.

Conclusion

The FAA has determined that this document involves an amendment that imposes no additional burden on any person. Accordingly, it has been determined that the action does not involve a major rule under Executive Order 12291. Moreover, it is not significant under DOT Regulatory Policies and Procedures (44 FR 11304; February 26, 1979).

The Amendment

In consideration of the foregoing, SFAR 58 (14 CFR parts 65, 108, 121, and 135) of the Federal Aviation Regulations is amended effective September 27, 1995.

The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722.

testing, and checking. This rule will increase the use of flight simulators and flight training devices by permitting their use for most airman certification training, testing, and checking tasks. This use of simulation for training, testing, and checking is more liberal than that currently permitted under the Federal Aviation Regulations. The training center concept will provide a common source for standardized, quality training accessible to any individual or corporate operator and air carriers. This action is consistent with a state-of-the-art training concept and recognizes industry recommendations for the expanded use of sophisticated flight simulation. The new rule also adds regulations regarding Category III instrument landing system operations.

NOTE: Please refer to preamble pages P-762 through P-825 for entire preamble.

(b) A certificate holder is eligible under this Special Federal Aviation Regulation if the certificate holder is required to have an approved training program under 121.401 or § 135.341 of the FAR, or elects to have an approved training program under § 135.341.

(c) A certificate holder obtains approval of each proposed curriculum under this AQP as specified in section 10 of this SFAR.

(d) A curriculum approved under the AQP may include elements of present part 121 and part 135 training programs. Each curriculum must specify the make, model, and series aircraft (or variant) and each crewmember position or other positions to be covered by that curriculum. Positions to be covered by the AQP must include all flight crewmember positions, instructors, and evaluators and may include other positions, such as flight attendants, aircraft dispatchers, and other operations personnel.

(e) Each certificate holder that obtains approval of an AQP under this SFAR shall comply with all of the requirements of that program.

2. Definitions.

As used in this SFAR:

Curriculum means a portion of an Advanced Qualification Program that covers one of three program areas: (1) indoctrination, (2) qualification, or (3) continuing qualification. A qualification or continuing qualification curriculum addresses the required training and qualification activities for a specific make, model, and series aircraft (or variant) and for a specific duty position.

Evaluator means a person who has satisfactorily completed training and evaluation that qualifies that person to evaluate the performance of crewmembers, instructors, other evaluators, aircraft dispatchers, and other operations personnel.

Facility means the physical environment required for training and qualification (e.g., buildings, classrooms).

Training center means [an organization certificated under part 142 of this chapter or an organization approved by the Administrator to operate under the terms of this SFAR to provide training as described in section 1(b) of SFAR 58.]

Variant means a specifically configured aircraft for which the FAA has identified training and qualification requirements that are significantly different from those applicable to other aircraft of the same make, model, and series.

3. Required Curriculums.

Each AQP must have separate curriculums for indoctrination, qualification, and continuing qualification as specified in §§ 4, 5, and 6 of this SFAR.

4. Indoctrination Curriculums.

Each indoctrination curriculum must include the following:

(a) For newly hired persons being trained under an AQP: Company policies and operating practices and general operational knowledge.

(b) For newly hired flight crewmembers and aircraft dispatchers: General aeronautical knowledge.

(c) For instructors: The fundamental principles of the teaching and learning process; methods and theories of instruction; and the knowledge necessary to use aircraft, flight training devices, flight simulators, and other training equipment in advanced qualification curriculums.

(b) A list of and text describing the training, qualification, and certification activities, as applicable for specific positions subject to the AQP, as follows:

(1) *Crewmembers, aircraft dispatchers, and other operations personnel.* Training, evaluation, and certification activities which are aircraft- and equipment-specific to qualify a person for a particular duty position on, or duties related to the operation of a specific make, model, and series aircraft (or variant); a list of and text describing the knowledge requirements, subject materials, job skills, and each maneuver and procedure to be trained and evaluated; the practical test requirements in addition to or in place of the requirements of parts 61, 63, and 65; and a list of and text describing supervised operating experience.

(2) *Instructors.* Training and evaluation to qualify a person to impart instruction on how to operate, or on how to ensure the safe operation of a particular make, model, and series aircraft (or variant).

(3) *Evaluators.* Training, evaluation, and certification activities that are aircraft and equipment specific to qualify a person to evaluate the performance of persons who operate or who ensure the safe operation of, a particular make, model, and series aircraft (or variant).

6. *Continuing Qualification Curriculums.*

Continuing qualification curriculums must comply with the following requirements:

(a) *General.* A continuing qualification curriculum must be based on—

(1) A continuing qualification cycle that ensures that during each cycle each person qualified under an AQP, including instructors and evaluators, will receive a balanced mix of training and evaluation on all events and subjects necessary to ensure that each person maintains the minimum proficiency level of knowledge, skills, and attitudes required for original qualification; and

(2) If applicable, flight crewmember or aircraft dispatcher recency of experience requirements.

(b) *Continuing Qualification Cycle Content.* Each continuing qualification cycle must include at least the following:

(1) *Evaluation period.* An evaluation period during which each person qualified under an AQP must receive at least one training session and a proficiency evaluation at a training facility. The number and frequency of training sessions must be approved by the Administrator. A training session, including any proficiency evaluation completed at that session, that occurs any time during the two calendar months before the last date for completion of an evaluation period can be considered by the certificate holder to be completed in the last calendar month.

(2) *Training.* Continuing qualification must include training in all events and major subjects required for original qualification, as follows:

(i) For pilots in command, second in command, flight engineers, and instructors and evaluators: Ground training including a general review of knowledge and skills covered in qualification training, updated information on newly developed procedures, and safety information.

(ii) For crewmembers, aircraft dispatchers, instructors, evaluators, and other operation personnel who conduct their duties in flight: Proficiency training in an aircraft, flight training device, or flight simulator on normal, abnormal, and emergency flight procedures and maneuvers.

(iii) For instructors and evaluators who are limited to conducting their duties in flight simulators and flight training devices: Proficiency training in a flight training device and/or flight simulator regarding operation of this training equipment and in operational flight procedures and maneuvers (normal, abnormal, and emergency).

in the certificate holder's curriculum which must be completed during each evaluation period.

(B) For any other persons covered by an AQP a means to evaluate their proficiency in the performance of their duties in their assigned tasks in an operational setting.

(ii) Online evaluations as follows:

(A) For pilots in command: An online evaluation conducted in an aircraft during actual flight operations under part 121 or part 135 or during operationally (line) oriented flights, such as ferry flights or proving flights. An online evaluation in an aircraft must be completed in the calendar month that includes the midpoint of the evaluation period. An online evaluation that is satisfactorily completed in the calendar month before or the calendar month after the calendar month in which it becomes due is considered to have been completed during the calendar month it became due. However, in no case is an online evaluation under this paragraph required more often than once during an evaluation period.

(B) During the online evaluations required under paragraph (b)(3)(ii)(A) of this section, each person performing duties as a pilot in command, second in command, or flight engineer for that flight, must be individually evaluated to determine whether he or she—(1) Remains adequately trained and currently proficient with respect to the particular aircraft, crew position, and type of operation in which he or she serves; and (2) Has sufficient knowledge and skills to operate effectively as part of a crew.

(4) *Recency of experience.* For pilots in command and seconds in command, and, if the certificate holder elects, flight engineers and aircraft dispatchers, approved recency of experience requirements.

(c) *Duration periods.* Initially the continuing qualification cycle approved for an AQP may not exceed 26 calendar months and the evaluation period may not exceed 13 calendar months. Thereafter, upon demonstration by a certificate holder that an extension is warranted, the Administrator may approve extensions of the continuing qualification cycle and the evaluation period in increments not exceeding 3 calendar months. However, a continuing qualification cycle may not exceed 39 calendar months and an evaluation period may not exceed 26 calendar months.

(d) *Requalification.* Each continuing qualification curriculum must include a curriculum segment that covers the requirements for requalifying a crewmember, aircraft dispatcher, or other operations personnel who has not maintained continuing qualification.

7. *Other Requirements.* In addition to the requirements of sections 4, 5, and 6, each AQP qualification and continuing qualification curriculum must include the following requirements:

(a) Approved Cockpit Resource Management (CRM) Training applicable to each position for which training is provided under an AQP.

(b) Approved training on and evaluation of skills and proficiency of each person being trained under an AQP to use their cockpit resource management skills and their technical (piloting or other) skills in an actual or simulated operations scenario. For flight crewmembers this training and evaluation must be conducted in an approved flight training device or flight simulator.

(c) Data collection procedures that will ensure that the certificate holder provides information from its crewmembers, instructors, and evaluators that will enable the FAA to determine whether the training and evaluations are working to accomplish the overall objectives of the curriculum.

8. *Certification.*

A person enrolled in an AQP is eligible to receive a commercial or airline transport pilot, flight engineer, or aircraft dispatcher certificate or appropriate rating based on the successful completion of training and evaluation events accomplished under that program if the following requirements are met:

9. Training Devices and Simulators.

(a) Qualification and approval of flight training devices and flight simulators.

(1) Any training device or simulator that will be used in an AQP for one of the following purposes must be evaluated by the Administrator for assignment of a flight training device or flight simulator qualification level:

- (i) Required evaluation of individual or crew proficiency.
- (ii) Training activities that determine if an individual or crew is ready for a proficiency evaluation.
- (iii) Activities used to meet recency of experience requirements.
- (iv) Line Operational Simulations (LOS).

(2) To be eligible to request evaluation for a qualification level of a flight training device or flight simulator an applicant must—

- (i) Hold an operating certificate; or
 - (ii) Be a training center that has applied for authorization to the Administrator or has been authorized by the Administrator to conduct training or qualification under an AQP.
- (3) Each flight training device or flight simulator to be used by a certificate holder or training center for any of the purposes set forth in paragraph (a)(1) of this section must—
- (i) Be, or have been, evaluated against a set of criteria established by the Administrator for a particular qualification level of simulation;
 - (ii) Be approved for its intended use in a specified AQP; and
 - (iii) Be part of a flight simulator or flight training device continuing qualification program approved by the Administrator.

(b) Approval of other Training Equipment.

(1) Any training device that is intended to be used in an AQP for purposes other than those set forth in paragraph (a)(1) of this section must be approved by the Administrator for its intended use.

(2) An applicant for approval of a training device under this paragraph must identify the device by its nomenclature and describe its intended use.

(3) Each training device approved for use in an AQP must be part of a continuing program to provide for its serviceability and fitness to perform its intended function as approved by the Administrator.

10. Approval of Advanced Qualification Program.

(a) *Approval Process.* Each applicant for approval of an AQP curriculum under this SFAR shall apply for approval of that curriculum. Application for approval is made to the certificate holder's FAA Flight Standards District Office.

(b) *Approval Criteria.* An application for approval of an AQP curriculum will be approved if the program meets the following requirements:

- (1) It must be submitted in a form and manner acceptable to the Administrator.
- (2) It must meet all of the requirements of this SFAR.

(d) *Advanced Qualification Program Revisions or Rescissions of Approval.* If after a certificate holder begins operations under an AQP, the Administrator finds that the certificate holder is not meeting the provisions of its approved AQP, the Administrator may require the certificate holder to make revisions in accordance with § 121.405 or § 135.325, as applicable, or to submit and obtain approval for a plan (containing a schedule of events) that the certificate holder must comply with and use to transition to an approved part 121 or part 135 training program, as appropriate.

11. *Approval of Training, Qualification, or Evaluation by a Person who Provides Training by Arrangement.*

(a) A certificate holder under part 121 or part 135 may arrange to have AQP required training, qualification, or evaluation functions performed by another person (a "training center") if the following requirements are met:

(1) The training center's training and qualification curriculums, curriculum segments, or portions of curriculum segments must be provisionally approved by the Administrator. A training center may apply for provisional approval independently or in conjunction with a certificate holder's application for AQP approval. Application for provisional approval must be made to the FAA's Flight Standards District Office that has responsibility for the training center.

(2) The specific use of provisionally approved curriculums, curriculum segments, or portions of curriculum segments in a certificate holder's AQP must be approved by the Administrator as set forth in Section 10 of this SFAR.

(b) An applicant for provisional approval of a curriculum, curriculum segment, or portion of a curriculum segment under this paragraph must show that the following requirements are met:

(1) The applicant must have a curriculum for the qualification and continuing qualification of each instructor or evaluator employed by the applicant.

(2) The applicant's facilities must be found by the Administrator to be adequate for any planned training, qualification, or evaluation for a part 121 or part 135 certificate holder.

(3) Except for indoctrination curriculums, the curriculum, curriculum segment, or portion of a curriculum segment must identify the specific make, model, and series aircraft (or variant) and crewmember or other positions for which it is designed.

(c) A certificate holder who wants approval to use a training center's provisionally approved curriculum, curriculum segment, or portion of a curriculum segment in its AQP, must show that the following requirements are met:

(1) Each instructor or evaluator used by the training center must meet all of the qualification and continuing qualification requirements that apply to employees of the certificate holder that has arranged for the training, including knowledge of the certificate holder's operations.

(2) Each provisionally approved curriculum, curriculum segment, or portion of a curriculum segment must be approved by the Administrator for use in the certificate holder's AQP. The Administrator will either provide approval or require modifications to ensure that each curriculum, curriculum segment, or portion of a curriculum segment is applicable to the certificate holder's AQP.

[(d) Approval for the training, qualification, or evaluation by a person who provides training by arrangement authorized by this section expires on August 3, 1998 unless that person meets the eligibility requirements specified under § 121.402 or § 135.324 of this chapter. After August 2, 1998 approval for the training, qualification, or evaluation, by a person who provides training by arrangement authorized by this section, shall be granted only to persons who meet the eligibility requirements specified under § 121.402 or § 135.234 of this chapter.]

